

FEB 08 2005

PTO/SB/02-102-04

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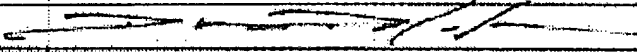
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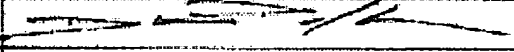
TRANSMITTAL FORM	Application Number	10/642,413
	Filing Date	08/15/2003
	First Named Inventor	HUANG, GEORGE Y.
	Art Unit	2839
	Examiner Name	TSUKERMAN, LARISSA S.
Total Number of Pages in This Submission	Attorney Contact Number	HUANG / CONT

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/Declarations <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Unpublished Patent Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Reheard <input type="checkbox"/> CD Number (or CD(s)) <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input checked="" type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (Please identify below)
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Firm Name	LAW OFFICE OF DUNCAN PALMATIER		
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FEE TRANSMITTAL

For FY 2005

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$):	250.00
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Complete if Known	
Application Number	10/642,413
Filing Date	08/15/2003
First Named Inventor	Huang, George
Examiner Name	TSUKERMAN, L.
Art Unit	2838
Attorney Docket No.	Huang/Cont

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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	400	200	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	30	15
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	300	150

Total Claims **Extra Claims** **Fee (\$)** **Fees Paid (\$)**

HP = highest number of independent claims paid for, if greater than 25.

Adjusted Claims **Extra Claims** **Fee (\$)** **Fees Paid (\$)**

HP = highest number of independent claims paid for, if greater than 25.

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (including electronically filed sequence or computer listings under 37 CFR 1.52(f)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 4100(f)(1)(C) and 37 CFR 1.16(a).

Total Sheets **Extra Sheets** **Number of each additional 50 or fraction thereof** **Fee (\$)** **Fees Paid (\$)**

- 100 = 150 = (Round up to a whole number) =

4. OTHER FEE(S)

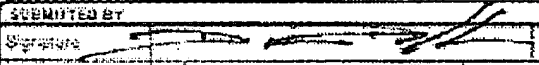
Non-English Specification: \$120 fee (no small entity discount)

Other (e.g., late filing surcharge): **APPEAL BRIEF 37CFR 1.181** **41.20 (b)(2)** **Fees Paid (\$)**

41.20 (b)(2) Fees Paid (\$)

250.00

SUBMITTED BY

Signature:  Registration No. 40,759 Telephone (208) 892-2162

Name (Print/Type): **DUNCAN PALMATIER** Date: **8 Feb. 05**

This collection of information is required by 37 CFR 1.102. The information is required to obtain or retain a benefit by the submission of an application, request for examination, or other communication to the USPTO. The collection is required to take 30 minutes to complete, including searching, reviewing, and attaching the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Examiner Office, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. OMB No. 0310-0110. SEND HERE OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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FEB 08 2005

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

First Named Inventor : George Y. Huang
Applicant : George Y. Huang
Application No. : 10/642,413
Filed : 08/15/2003
For : ELECTRICAL CONNECTOR AND ADAPTER
STRUCTURE WITH RAISED PORTION
Group Art Unit : 2833
Examiner : TSUKERMAN, LARISA Z.
Attorney Docket : Huang/Cont Raised Port
Customer No. : 26860

APPEAL BRIEF, 37 CFR 1.192

February 8, 2005

Mail Stop Appeal Brief - Patents
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

VIA FAX (703) 872-9306

Dear Commissioner for Patents:

Further to the Notice of Appeal, filed December 8, 2004, Appellant-Applicant George Y. Huang presents this Appeal Brief. Appellant respectfully requests that this appeal be considered by the Board of Patent Appeals and Interferences.

This Appeal Brief is submitted in triplicate, along with the following items:

- Transmittal Form (PTO/SB/21);
- Fee Transmittal Form (PTO/SB/17);
- Credit Card Payment Form (PTO 2038); and
- Appeal Brief (3 copies).

02/09/2005 EKOLI1 00000004 10642413

Application/Control Number: 10/642,413

Atty Docket No.: Huang/Cont
Raised Port

Ex'r: Tsukerman, Larisa Z.; Art Unit: 2833

I. REAL PARTY IN INTEREST

The subject patent application is owned by the inventor and applicant, George Y. Huang.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences pending.

The parent (application No. 09/657,869) of this continuation application was the subject of an appeal, No. 2002-1175, filed on October 3, 2001 ("first appeal"). The Board of Patent Appeals & Interferences (BPAI) rendered its Decision on Appeal on June 17, 2003 ("6/17/03 Decision"), affirming the rejections, as discussed in greater detail below. However, at the oral hearing in that first appeal, the Appellant and the BPAI discussed an amendment to overcome the Examiner's rejections. At the oral hearing, Appellant understood the BPAI to take the position that the proposed amendment would overcome the ground for rejection, but it could not recommend the amendment to the Examiner. Following the first appeal, Applicant filed the instant continuation application and a preliminary amendment incorporating the proposed amendment. However, the Examiner twice and finally rejected the amended claims and this second appeal followed.

III. STATUS OF CLAIMS

Claims 1, 3 through 12, and 14 through 16 are pending, were rejected by the Examiner, and are the subject of this appeal. Claims 2 and 13 were canceled in the preliminary amendment filed with the instant continuation application.

IV. STATUS OF AMENDMENTS

All the pending claims, 1, 3 through 12, and 14 through 16, of the instant continuation

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application were amended in a preliminary amendment filed with the continuation application. Claims 2 and 13 were canceled in that preliminary amendment. At the time of filing of this brief, no amendments subsequent to the final rejection have been made. The Appendix hereto reflects the current state of the claims.

V. SUMMARY OF THE INVENTION

The invention relates to electrical connector and adapter structures used in the electronics industry. See U.S. Publication No. 2004/53,533 ("Huang"), at ¶ 0004. The invention discloses a connector or adapter housing structure that provides a raised portion that will be exposed after the outer plastic covering is molded onto the connector or adapter. Id. at ¶¶ 0016-18, and Fig. 2. This raised portion of the housing provides a place to incorporate designs, such as business logos or gripping surfaces, which can be formed as part of the raised portion. Id. at ¶¶ 0019 and 0021, and Figures 3 and 4.

The present invention eliminates the need to apply a logo through a second injection molding process or by affixing it in a later manufacturing step. Id. at ¶¶ 0007 (describing need for two-step molding process of prior art), and 0010 (invention eliminates second injection molding step). The raised portion of the present invention also provides a more discernable and durable surface for logos than the molded plastic covering. Id. Moreover, with transparent plastic coverings of recent designs, the raised portion of the present invention provides the best surface for logos or other information. Id. In this way, a cable connector or adapter can be manufactured and assembled with fewer parts and steps, and the finished product will provide a superior surface for logos and information. Id.

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VI. ISSUES

1. Whether claims 1 and 12 are unpatentable under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,735,699 to Tan *et al.* ("Tan").
2. Whether claims 1 and 12 are unpatentable under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,704,091 to Owens *et al.* ("Owens").
3. Whether claims 3 through 6 and 14 are unpatentable under 35 U.S.C. § 103(a) over Owens.
4. Whether claims 7 and 15 are unpatentable under 35 U.S.C. § 103(a) over Owens.
5. Whether claims 8 and 10 are unpatentable under 35 U.S.C. § 103(a) over Owens.
6. Whether claims 11 and 16 are unpatentable under 35 U.S.C. § 103(a) over Owens in view of U.S. Patent No. 4,164,725 to Wiebe ("Wiebe").

VII. GROUPING OF CLAIMS

With respect to the 35 U.S.C. § 102(b) rejections, claims 1 and 12 will stand or fall together, insofar as the Examiner's ground for rejection is applied in the same way to each claim.

With respect to the 35 U.S.C. § 103(a) rejections, claims 3 and 14 stand or fall together, insofar as the Examiner's ground for rejection is applied in the same way to each claim. Claims 4 through 6 stand or fall together, insofar as the Examiner's ground for rejection is applied in the same way to each claim. Claims 7 and 15 stand or fall together, insofar as the Examiner's ground for rejection is applied in the same way to each claim. Claims 8 through 10 stand or fall together, insofar as the Examiner's ground for rejection is applied in the same way to each claim. Claims 11 and 16 stand or fall together, insofar as the Examiner's ground for rejection is applied

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in the same way to each claim.

VIII. ARGUMENT

A. APPEAL IN THE PARENT APPLICATION

At the oral hearing in the first appeal, the Appellant and the BPAI discussed an amendment to claim 1 to overcome the Examiner's rejections. Before amendment, claim 1 read as follows (emphasis added):

1. An electrical connector structure comprising:

a housing with an outer surface and at least one end adapted to hold an electrical connector plug, wherein the housing has a raised portion that is above the outer surface of the housing, and

a covering formed over the outer surface of the housing, wherein the covering is further formed around the raised portion so that an exposed part of the raised portion is not covered by the covering, and

wherein the exposed part of the raised portion forms a surface further comprising a design formed as part of the surface.

The BPAI concluded that the raised portion 26 of Owens inherently constituted a "design" within the meaning of the bolded language in Appellant's claim 1. See 6/17/03 Decision. At the oral hearing, Appellant and the BPAI discussed an amendment that would overcome the Owens reference. The amendment was as follows:

1. An electrical connector structure comprising:

a housing with an outer surface and at least one end adapted to hold an electrical connector plug, wherein the housing has a raised portion that is above the outer surface

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of the housing, and

a covering formed over the outer surface of the housing, wherein the covering is further formed around the raised portion so that an exposed part of the raised portion is not covered by the covering, wherein the exposed part of the raised portion further comprises a background surface and a design surface, and

wherein the ~~exposed part of the raised portion forms a surface further comprising a design~~ design surface is formed as part of the background surface and is not level with the background surface.

At the oral hearing, Appellant understood the BPAI to take the position that the above amendment would overcome the BPAI's ground for rejection. That is, the BPAI stated that the raised portion 26 of Owens formed a "design surface", thereby anticipating the claim. The above amendment, discussed at the oral hearing, overcame the Owens reference by distinguishing between a "design surface" of the type the BPAI argued was inherent in the raised portion 26 of Owens, and "design surface" which is distinguished from a "background surface". The amendment overcame Owens by clarifying that the claimed "design surface" is not the same as, nor at the same level as, the claimed "background surface".

Following the 6/17/03 Decision, Applicant filed a continuation application with a preliminary amendment incorporating the amendment discussed with the BPAI. The Examiner did not maintain the previous grounds for rejection, which were involved in the first appeal, but rejected the amended claims based on new arguments.

B. 35 U.S.C. § 102(b) REJECTION

The Examiner rejected the two independent claims, 1 and 12, under 35 U.S.C. §102(b),

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as being anticipated by Tan. See September 9, 2004 Final Office Action ("9/9/04 OA"), at p. 2.

Of particular importance, the Examiner erroneously interpreted the drawings of Tan as showing the Applicant's claimed "raised portion" with a "background surface" and "design surface",

when, in fact, Tan shows no such structure at all. With respect to the elements of Tan relied

upon by the Examiner, Tan shows and describes an audio jack unit (17) with a hollow,

cylindrical "mating port" (29) for receiving an audio jack connector. Tan shows no surfaces.

The descriptions in Tan directly contradict the Examiner's arguments. The Examiner made these arguments in the January 6, 2004 Non-Final Office Action ("1/6/04 OA"), at p. 2, and

Applicant's June 7, 2004 Response ("6/7/04 Response"), noted the discrepancies between the

Examiner's arguments and the actual teaching of Tan. However, the Examiner continued to

insist that the hollow, cylindrical, audio jack connector (29) of Tan is solid and not an audio port

as described by Tan. See 9/9/04 OA, at p. 6 ("**first of all**, Tan et al. clearly discloses that the

housing 16 has a raised portion 29 that is above the outer of the housing 16"; emphasis added).

Thus, Tan does not show the elements of Applicant's claims. The Examiner's argument is

without support.

The Examiner also rejected claims 1 and 12 on the the ground that they are anticipated by U.S. Patent No. 4,704,091 to Owens *et al.* ("Owens"). See 9/9/04 OA, at p. 3. The Examiner argued that while Owens does not disclose "**background surface and a design surface**", such limitations are unpatentable because they are "matters relating to **ornamentation only which have no mechanical function**" and, therefore, "cannot be relied upon to **patentably distinguish** the claimed invention from the prior art." Id. (Emphasis in original.) This argument cannot

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support an anticipation rejection, because the prior art does not teach all the elements and limitations of the claimed invention. Moreover, Applicant's disclosure specifically recites the manufacturing advantages of the limitations the Examiner denounces as ornamental.

1. Tan Does Not Have the Elements Recited by the Examiner

a. Tan's Audio Jack (17) Mating Ports (29) Are Not Raised Portions With Background and Design Surfaces

The Examiner argued that Tan discloses a device (10) with a housing (16), "wherein the housing 16 has a raised portion 29 above the outer surface of the housing 16", and that an "exposed part of the raised portion further comprises a background surface BS and a design surface DS". See 9/9/04 OA, at p. 2. The Examiner erroneously interpreted the drawings of Tan as showing the Applicant's claimed "raised portion" with a "background surface" and "design surface", when, in fact, Tan shows no such structure at all. In support of this argument, the Examiner identified Fig. 3 of Tan and copied into the 9/9/04 OA with the Examiner's superimposed references to "BS" and "DS". Id.

Tan discloses an "existing universal frame and its associated audio jack assembly" (12) (Tan, Col. 1:37-38), "for mounting to a mother board (100)" (id., Abstract) within a "computer case" (id., Col. 1:10-11), with an improved grounding clip (26). Id., Col. 1:6 and 1:35. The Examiner misunderstands the structure of the audio jack (16) mating ports (29) (id., Col. 3:46) and argues that they constitute the "raised portion" element of the claims at issue. See 9/9/04 OA, at 2. The Examiner mistakenly speculates that each of the audio jack mating ports (29) of Tan "further comprises a **background surface BS** and a **design surface DS**, and the design

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surface is formed as part of the background surface and is not level with the background surface". Id. (Emphasis added.) Tan does not disclose or show such a structure. On the contrary, Tan discloses a "three-in-one integral audio jack assembly 16" (see Tan, Col. 2:28) "composed of three audio jack units 17" (id., Col. 2:38-39) having electrical contacts (22 and 24, id., Col. 2:40-41) for mating to a computer motherboard (100, id., Col. 2:41-51), and each audio jack unit (17) has a "mating port" (29, id., Col. 3:46):

the mating port 29 of the audio jack unit 17 commonly project out of the opening 48 of the bracket 12 wherein the mating portion 29 of the audio jack unit 17 is positioned on the upper portion thereof...

See Tan, Col. 3:45-49. The expressly referenced companion application of Tan (see Tan, Col. 1:13-14), U.S. Patent No. 5,643,008 ("Tan II"), includes a slightly more detailed description of the audio jack assembly and mating ports:

the mating portion 42 of each unit 34 of the audio jack assembly 30 is adapted to project out of the corresponding opening 25 of the bracket 12 for coupling to the complementary cable connector (not shown).

See Tan II, Col. 3:51-55.

From these descriptions in Tan, it will be appreciated that, contrary to the Examiner's erroneous speculation, Tan does not show any surface, neither background nor design, neither "exposed", level nor lower than any other surface; rather, Tan shows a hollow, cylindrical audio jack mating port (29) to receive an audio cable connector. Therefore, as to the background and design surface elements, Tan does not anticipate the claimed structure. The Examiner's interpretation of Tan's Fig. 3, as shown by the Examiner's added markings "BS" and "DS", is

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contrary to Tan's description.

Moreover, as described in Tan and Tan II, each audio jack unit (17) has four signal contacts (22) as well as a grounding contact (24) (see Tan, Col. 2:38-41, and Tan II, at Col. 3:26-32), and it will be appreciated that the mating ports (29) are formed in multiple rings of electrical contacts and insulators. The claim language at issue here includes the limitation that the raised portion "is formed as part of the background surface", which is not taught by the many-layered audio jack ports of Tan.

b. Tan Lacks The Other Claimed Elements And Limitations

The Examiner also misinterpreted the other elements of Tan. The structure shown in Tan is an audio jack assembly (10), with a grounding clip (26), for mounting to a computer motherboard (100). This structure does not disclose or teach the elements of Applicant's claims, such as a "housing with an outer surface", an "end adapted to hold an electrical connector plug", a "raised portion", *etc.*

The Examiner argues that the "three-in-one integral audio jack assembly 16" of Tan (see Tan, Col. 2:28) is the equivalent of the claimed "housing". See 9/9/04 OA, at p. 2. This is incorrect. As explained in Tan, the three-in-one integral audio jack "assembly" (16) is an assembly, that is, a collection of parts (see Tan, Col. 2:38-51), and does not form a "housing" at all. The Examiner does not point out what part of Tan's three-in-one integral audio jack assembly (16) constitutes the claims' "outer surface", and erroneously associates a "downward huge cavity 20" (id., Col. 2:33-34) in the "universal frame or bracket 12" (id., Col. 2:25) with the three-in-one integral audio jack assembly (16). See 9/9/04 OA, at p. 2. The cavity (20) of Tan is

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in its bracket (20), not in the three-in-one integral audio jack assembly (16), and is not an “end adapted to hold an electrical connector plug”, as claimed. The audio jack mating ports (29) of Tan are not the claimed “raised portion”; rather, they are themselves audio jack connectors. The Examiner incorrectly interprets the “universal frame or bracket 12” (*id.*, Col. 2:25) of Tan with the claimed “covering formed over the outer surface of the housing”. See 9/9/04 OA, at p. 2. As Tan describes, the bracket (12) is a frame to hold a D-subminiature connector (14), not a covering. See Tan, Col. 2:25-31 (the connector (14) is attached to the bracket (12) by rivets (18)). Tan nowhere teaches a covering as claimed here. Thus, Tan does not have any of the elements at issue here. Applicant raised these arguments in its 6/7/04 Response, but the Examiner made no effort to address them. See 9/9/04 OA, at p. 6.

2. Owens Cannot Anticipate the Claimed Invention Because it Lacks All the Elements and Limitations

The Examiner also argues that the claims are anticipated by U.S. Patent No. 4,704,091 to Owens, *et al.* (“Owens”). See 9/9/04 OA, at p. 3. This anticipation argument is improper, because the Examiner admits that Owens does not teach the background and design surface elements, as well as other limitations of Applicant’s claims. Id. A rejection for anticipation under Section 102 requires that each and every limitation of the claimed invention be disclosed in a single prior art reference. Scripps Clinic & Research Foundation v. Genentech, Inc., 927 F.2d 1565 (Fed. Cir. 1991). The Examiner’s argument is contrary to the “all elements rule” for anticipation, as explained by Scripps Clinic, 927 F.2d at 1576 (emphasis added):

Invalidity for anticipation requires that all of the elements and limitations of the claim are found within a single prior art

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reference. [*Citations omitted.*] **There must be no difference between the claimed invention and the reference disclosure**, as viewed by a person of ordinary skill in the field of the invention.

In addition, the reference must be enabling and describe the applicant's claimed invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention. Id. It is legal error to "build" an anticipation argument on more than a single reference:

If it is necessary to reach beyond the boundaries of a single reference to provide missing disclosure of the claimed invention, the proper ground is not § 102 anticipation, but § 103 obviousness.

Id., 927 F.2d at 1576-77, citing Studiengesellschaft Kohle, mbH v. Dart Industries, Inc., 726 F.2d 724, 727, 220 USPQ 841, 842 (Fed. Cir. 1984).

In this application, the Examiner has attempted to "build" an anticipation rejection on the unsupported contention that the claimed raised portion structure is ornamentation, and, therefore, Owens anticipates it, even though the Examiner admits that Owens lacks the claimed structure. Because this argument violates the rules for anticipation, it cannot stand.

The Examiner incorrectly cites In re Seid, 161 F.2d 229 (C.C.P.A. 1947), for the proposition that claim elements or limitations relating to "ornamentation only" do not fall within the general rule that a single anticipating reference must disclose every claimed element. See 9/9/04 OA, at p. 3. In re Seid did not involve anticipation; rather, it addressed the issue of obviousness.

It was conceded by both the board and the examiner that the claims were not met by any single reference.

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The issue presented here is whether the proposed combination of references is an **obvious** one or one involving invention.

Id., 161 F.2d at 231 (emphasis added).

Moreover, the Examiner misinterpreted the ruling in In re Seid. In that case, the claim at issue involved a soda bottle with “an artificial display figure... representing exteriorly a human head and upper body trunk”, of a specifically claimed form, to fit over the bottle’s neck. Id., 161 F.2d at 229-30. The claim was rejected as obvious in light of several prior art patents disclosing bottles with neck coverings and human figures. Id., 161 F.2d at 230. The Court held that the “particular shape and arrangement” of the applicant’s claimed human figure, “including the arrangement of the arms”, related “to ornamentation only and have no mechanical function whatsoever.” Id., 161 F.2d at 231. It should be noted that all of the issued prior art patents discussed in In re Seid included claims for structures intended to provide a place for a design – ornamentation – on bottles. The applicant’s difficulty in In re Seid was that the claimed bottle design was only distinguishable to the extent it recited a *specific design* of a human form. Thus, In re Seid stands for the rule that a claim reciting a specific ornamental design, such as a human figure arranged in a particular way, cannot be distinguished from prior art that discloses a generic design, such as a human figure.

In this application, the Examiner argues that, since the claims relate to a structure with background surface and a design surface, they claim “matters relating to **ornamentation only which have no mechanical function**” and are unpatentable. See 9/9/04 OA, at p. 3 (emphasis in original). The Examiner has confused mechanical structure having the function of providing a

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place for ornamentation with the ornamentation itself. In the present application, Applicant has made no claim to a particular ornamentation; rather, Applicant has claimed a mechanical structure, with expressly detailed industrial advantages, that can provide a "design surface" of a certain type. Thus, In re Seid does not support the Examiner's rejection. Moreover, all the prior art cited in In re Seid involved issued patents that claimed structures for locating ornamental designs, which is the case in the present application.

Finally, the mechanical advantages of the present design have been expressly recited in Applicant's Specification. See Huang, at ¶¶ 0006-10. The problem of a two-step molding process to apply manufacturers' designs is expressly described. Id., at ¶ 0007. The problem of distinguishing a manufacturer's design through transparent plastic is also described. Id., ¶ 0008. The present invention provides a mechanical structure for an electrical connector that overcomes these problems. Id., ¶ 0010. The specific form of an ornamental design is not claimed. Therefore, the Examiner's reliance on In re Seid is misplaced.

C. REJECTION OF CLAIMS , 3, 4-10, 11, AND 14-16 UNDER 35 USC §103(a)

The Examiner rejected dependent claims 3, 4-7, 11 and 14-16 under 35 U.S.C. §103(a) as being unpatentable over Owens. See 9/9/04 OA, at pp. 4-5.

The Examiner failed to provide an explanation of what claimed elements or limitations Owens acts as a primary reference, merely stating that "Owens et al. Disclose most of the claimed invention". Id., at p. 4.

Owens shows a cable connector with an inner yoke (12) and an outer yoke (14). The inner yoke has a "raised planar member" (26) that extends through a "rectangular hole" (42) in

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the outer yoke (14) for “mechanical security of the inner yoke 12 and associated components within the outer yoke member 14.” See Owens, Col. 3:15-20 (“Raised planar member 26 engages within rectangular hole 42, and the elongated oval member 36 engages within hole 44 of the outer yoke 14 for positive mechanical positioning and securing of the inner yoke 12 within the outer yoke 14”), and Col. 3:61 through Col. 4:4 (“The raised planar surface 26 essentially extends through rectangular hole 42 of the outer yoke 14 as does the elongated oval member 36 through the elongated oval hole 44 on the underside of the outer yoke body 14 for mechanical securement of the inner yoke 12 and associated components within the outer yoke member 14”). Owens does not describe or claim the “raised planar member” as a structure for incorporating designs, logos or a gripping surface.

Owens disclosed a three-step molding process, wherein an “informational plaque” is encompassed by the outer yoke (14) during molding of the outer yoke. That is, Owens describes molding an “information plaque” into the connector. See Owens, at Abstract (“a final yoke assembly is molded encompassing the ... informational plaque”); see also Col. 1:47-48 (“information plaques molded into the yoke”), Col. 1:59-60 (“a molded contact pin dot information plaque in the yoke”), Col. 3:50-58 (“[i]n forming outer yoke 14, a high grade polymer molding compound flows around and is molded to the inner yoke 12, around color coded alpha-numeric labeling inserts 28a-28n leaving the upper surface of the inserts 28a-28n exposed, around the raised planar informative plaque member 26, and around bottom elongated oval member 36 as illustrated in FIG. 3 also leaving their exterior surfaces exposed”), Col. 4:48-49 (dependent claim 4, “System of claim 1 including information plaque means molded into said

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outer yoke housing”), and Col. 4:60-62 (independent claim 4, “c. molding an outer yoke housing incorporating an information plaque and the inner yoke body of step (b)”). Owens’ teaching reflects the problem of the prior art disclosed by Huang:

To provide a place for a manufacturer’s name or for part identification, the plastic covering **11** of conventional connectors is sometimes molded with a recess **20**. In the recess **20**, identifying logos, designs, words, or numbers are often formed in the molding process, leaving raised or indented surfaces (not shown) in the plastic covering **11**. Or, a label (not shown) can be affixed in the recess **20** after molding. **Some designs have a raised surface design by placing the cable connector 10 or adapter in a second injection mold and adding a second plastic surface 15. This two-step molding process allows different colors or textures of plastic to be used.**

See Huang, ¶ 0007 (emphasis added). In summary, Owens teaches and Huang discloses as prior art a multi-step molding process to incorporate an “informational plaque” (Owens) or “raised surface design” (Huang’s disclosure of prior art) into a final plastic connector.

1. Claims 3 and 14

The Examiner argues that Owens renders claims 3 and 14 (sub-surface limitation) obvious, because “applicant has not disclosed that this limitation solve [*sic*] any stated problem or are for any other purpose”. See 9/9/04 OA, at p. 4. The Examiner is mistaken. As noted above, Applicant’s Specification describes the problems of the prior art, including the multi-step molding and transparent plastic covering problems (see Huang, at ¶¶ 0007-8), and explains that the claimed invention overcomes these problems by providing a design surface in which and onto which “logos or other information can be placed on or molded into”. *Id.*, “Summary of the Invention”, at ¶ 0010. The Specification explains that according to the claimed structure, “a

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cable connector or adapter can be manufactured and assembled with fewer parts and steps, and the finished product will provide a superior surface for logos and information.” *Id.* Therefore, contrary to the Examiner’s argument, Applicant fully described the problems of the prior art and how the claimed structure overcomes those problems.

Moreover, the Examiner’s argument is legally flawed. The Examiner argued that, based on the erroneous assumption that Applicant’s invention does not “solve any stated problem or are for any particular purpose” (*see* 9/9/04 OA, at p. 4), the invention “would perform equally well with or without a **design surface** formed as a sub-surface design **below** the background surface.” *Id.* (Emphasis in original.) In other words, the Examiner has concluded that the raised portion of the claimed structure is useless and, therefore, rendered obvious by Owens, which does not have an equivalent structure. An obviousness rejection cannot be based on an argument that a claimed element or limitation fails to solve a stated problem. To support an obviousness rejection, the Examiner was required to identify a single, primary reference. *Durling v. Spectrum Furniture Co.*, 101 F.3d 100, 103 (Fed. Cir.1996). After the primary reference is identified, secondary references must be identified. *Id.*, *citing In re Harvey*, 12 F.3d 1061, 1063 (Fed. Cir. 1993). The secondary references may only be used when a suggestion or motivation, to combine the primary and secondary references to create the claimed design, is identified. *Hupp v. Siroflex of America, Inc.*, 122 F.3d 1456, 1462 (Fed. Cir.1997).

Pursuant to MPEP §706.02(j), “After indicating that the rejection is under 35 U.S.C. 103, the examiner should set forth in the Office action: (A) the relevant teaching of the prior art relied upon . . . , (B) the difference or differences in the claim over the applied references, © the

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proposed modification of the applied references(s) necessary to arrive at the claimed subject matter, and (D) an explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification.”

MPEP §706.02(j) further provides that “To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.” (Citation omitted.)

MPEP §706.02(j) explains that “The initial burden is on the examiner to provide suggestion of the desirability of doing what the inventor has done. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.” (Citation omitted.)

MPEP §2141.01 provides that “When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to: (A) The claimed invention must be considered as a whole; (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; © The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (D) Reasonable expectation of success is the standard with which obviousness is determined.” (Citation omitted.)

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In this application, the Examiner failed to follow the procedures and legal standards for an obviousness rejection and has, instead, created an obviousness standard that depends on an Examiner's factual assertion that a particular element or limitation does not "solve any stated problem". See 9/9/04 OA, at p. 4. This standard is unsupported and must be overturned.

2. Claims 4 through 6

The Examiner argues that Owens renders claims 4 through 6 (sub-surface limitation) obvious, because these claims recite an unpatentable product by process when the "method does not impart any structural limitation." See 9/9/04 OA, at p. 4. These claims relate to the creation of a design in the "background surface" by molding (claim 4), machining (claim 5), or stamping (claim 6). The Examiner argues that Owens is the primary reference, relying on the 35 USC §102(b) rejection of the base claims, discussed above. As explained above, Owens does not anticipate the base claims. Therefore, the rejection of these dependent claims fails. Moreover, contrary to the Examiner's argument, the rejected claims are distinguishable over the prior art, because they claim structures that overcome the problems of the prior art; namely, providing a design surface in which and onto which "logos or other information can be placed on or molded into" (see Huang, at ¶ 0010), to overcome the multi-step molding and transparent plastic covering problems. Id., at ¶¶ 0007-8). The Specification also explains that the claimed structure can provide a cable connector that "can be manufactured and assembled with fewer parts and steps", and a finished product with "a superior surface for logos and information." Id., at ¶ 0010. Thus, the claimed structure and process for manufacturing that structure have expressly described advantages over the prior art.

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The Examiner argued that the rejected claims involve an impermissible attempt to patent a product by process, citing In re Johnson, 394 F.2d 591, 594, 157 USPQ 620, 623 (CCPA 1968). This rejection is improper, since a “process” is expressly identified as patentable subject matters under the patent statute. See 35 U.S.C. §101 (“Whoever invents or discovers any new and useful **process**, machine, **manufacture**, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title”). Huang’s patent application discloses and claims manufacturing the design, formed in the exposed surface of the raised portion of the connector housing, during the manufacture of the housing, by molding, machining or stamping. As explained above, this manufacture eliminates the additional molding step claimed by Owens and disclosed by Huang as prior art. As explained in the Huang Specification, the elimination of the additional molding step simplifies connector manufacture. See Huang, ¶ 0010. Because the patent statute considers this patentable subject matter, the Examiner’s rejection is improper.

3. Claims 7 and 15

The Examiner rejected claims 7 and 15 (above-surface limitation) on the ground that “applicant has not disclosed that this limitation solve [*sic*] any stated problem or are for any other purpose”. See 9/9/04 OA, at pp. 4-5. This is the identical argument used to reject claims 3 and 14, as discussed in Section B.1, above. As noted above, Applicant’s Specification describes the problems of the prior art, including the multi-step molding and transparent plastic covering problems (see Huang, at ¶¶ 0007-8), and explains that the claimed invention overcomes these problems by providing a design surface in which and onto which “logos or other information can

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be placed on or molded into”. Id., “Summary of the Invention”, at ¶ 0010. The Specification explains that according to the claimed structure, “a cable connector or adapter can be manufactured and assembled with fewer parts and steps, and the finished product will provide a superior surface for logos and information.” Id. Therefore, contrary to the Examiner’s argument, Applicant fully described the problems of the prior art and how the claimed structure overcomes those problems.

Applicant also contests this rejection on the ground that the Examiner’s argument is legally flawed. The Examiner argued that, based on the erroneous assumption that Applicant’s invention does not “solve any stated problem or are for any particular purpose” (see 9/9/04 OA, at p. 5), the invention “would perform equally well with or without a **design surface** formed as a sub-surface design **below** the background surface.” Id. (Emphasis in original.) In other words, the Examiner has concluded that the raised portion of the claimed structure is useless and, therefore, anticipated by Owens, which does not have an equivalent structure. As with claims 3 and 14, discussed above, the Examiner has improperly attempted to build an obviousness rejection by reaching the factual determination that certain elements or limitations do not “solve any stated problem”. As argued above, there is no legal or factual basis for this argument and it must be overturned.

4. Claims 8 through 10

The Examiner argues that Owens renders claims 8 through 10 (above-surface limitation) obvious, because these claims recite an unpatentable product by process when the “method does not impart any structural limitation.” See 9/9/04 OA, at p. 5. The Examiner argues that Owens

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is the primary reference, relying on the 35 USC §102(b) rejection of the base claims, discussed above. As explained above, Owens does not anticipate the base claims. Therefore, the rejection of these dependent claims fails. Moreover, contrary to the Examiner's argument, the rejected claims are distinguishable over the prior art, because they claim structures that overcome the problems of the prior art; namely, providing a design surface in which and onto which "logos or other information can be placed on or molded into" (see, Huang, ¶ 0010), to overcome the multi-step molding and transparent plastic covering problems. Id., ¶¶ 0007-8. The Specification also explains that the claimed structure can provide a cable connector that "can be manufactured and assembled with fewer parts and steps", and a finished product with "a superior surface for logos and information." Id., ¶ 0010. Thus, the claimed structure and process for manufacturing that structure have expressly described advantages over the prior art.

The Examiner argued that the rejected claims involve an impermissible attempt to patent a product by process, citing In re Johnson, 394 F.2d 591, 594, 157 USPQ 620, 623 (CCPA 1968). This rejection is improper, since a "process" is expressly identified as patentable subject matters under the patent statute. See 35 U.S.C. §101 ("Whoever invents or discovers any new and useful **process**, machine, **manufacture**, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title"; emphasis added). Huang's patent application discloses and claims manufacturing the design, formed in the exposed surface of the raised portion of the connector housing, during the manufacture of the housing, by molding, machining or stamping. As explained above, this manufacture eliminates the additional molding step claimed by Owens and disclosed by Huang

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as prior art. As explained in the Huang Specification, the elimination of the additional molding step simplifies connector manufacture. See Huang ¶ 0010. Because the patent statute considers this patentable subject matter, the Examiner's rejection is improper.

5. Claims 11 and 16

The Examiner rejected dependent claims 11 and 16 as unpatentable over Owens in view of U.S. Patent No. 4,164,725 to Wiebe ("Wiebe"). See 9/9/04 OA, at p. 5. The Examiner argues that Owens is the primary reference, relying on the 35 USC §102(b) rejection of the base claims, discussed above. As explained above, Owens does not anticipate the base claims. Therefore, the rejection of these dependent claims fails.

To establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. In re Werner Kotzab, 217 F.3d 1365, 1370 55 U.S.P.Q.2d (BNA) 1313 (Fed. Cir. 2000) (internal citations omitted). The Examiner cited no suggestion or motivation to combine Owens with Wiebe. Rather, the Examiner improperly cited the desirability of providing a gripping surface (see 9/9/04 OA, at p. 5: "to permit one to better grip the connector") as the motivation to combine the references. This type of circular argument cannot form the basis of an obviousness rejection.

IX. CONCLUSION

For the foregoing reasons, it is submitted that the Examiner's rejections are without legal support, and reversal of the Examiner's decision is respectfully requested.

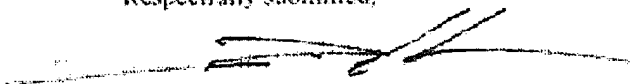
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Ex'n: Tsukerman, Larisa Z.; Art Unit: 2833

Dated: February 8, 2005

Respectfully submitted,



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X. APPENDIX

The claims on appeal are as follows.

1. An electrical connector structure comprising:
 - a housing with an outer surface and at least one end adapted to hold an electrical connector plug, wherein the housing has a raised portion that is above the outer surface of the housing,
 - a covering formed over the outer surface of the housing, wherein the covering is further formed around the raised portion so that an exposed part of the raised portion is not covered by the covering, wherein the exposed part of the raised portion further comprises a background surface and a design surface, and
 - wherein the design surface is formed as part of the background surface and is not level with the background surface.
2. (canceled)
3. The electrical connector structure of claim 1 wherein the design surface formed in the background surface of the exposed part of the raised portion is a sub-surface design below the background surface.
4. The electrical connector structure of claim 3 wherein the sub-surface design is formed in the background surface of the raised portion of the housing during molding of the housing.
5. The electrical connector structure of claim 3 wherein the sub-surface design is formed in

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the background surface of the raised portion of the housing by machining.

6. The electrical connector structure of claim 3 wherein the sub-surface design is formed in the background surface of the raised portion of the housing by stamping.
7. The electrical connector structure of claim 1 wherein the design surface formed in the background surface of the exposed part of the raised portion is an above-surface design above the background surface.
8. The electrical connector structure of claim 7 wherein the above-surface design is formed in the background surface of the raised portion of the housing during molding of the housing.
9. The electrical connector structure of claim 7 wherein the above-surface design is formed in the background surface of the raised portion of the housing by machining.
10. The electrical connector structure of claim 7 wherein the above-surface design is formed in the background surface of the raised portion of the housing by stamping.
11. The electrical connector structure of claim 1 wherein the design surface formed in the background surface of the exposed part of the raised portion is a gripping surface design.
12. An electrical adapter structure comprising:
 - a housing with an outer surface and at least one end adapted to hold an electrical connector plug, wherein the housing has a raised portion that is above the outer surface of the housing,
 - a covering formed over the outer surface of the housing, wherein the covering is further

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formed around the raised portion so that an exposed part of the raised portion is not covered by the covering, wherein the exposed part of the raised portion further comprises a background surface and a design surface, and

wherein the design surface is formed as part of the background surface and is not level with the background surface.

13. (canceled)

14. The electrical adapter structure of claim 12 wherein the design surface formed in the background surface of the exposed part of the raised portion is a sub-surface design below the background surface.

15. The electrical adapter structure of claim 12 wherein the design surface formed in the background surface of the exposed part of the raised portion is an above-surface design above the surface of the background surface.

16. The electrical adapter structure of claim 12 wherein the design formed in the background surface of the exposed part of the raised portion is a gripping surface design.

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

First Named Inventor : George Y. Huang
Applicant : George Y. Huang
Application No. : 10/642,413
Filed : 08/15/2003
For : ELECTRICAL CONNECTOR AND ADAPTER
STRUCTURE WITH RAISED PORTION
Group Art Unit : 2833
Examiner : TSUKERMAN, LARISA Z.
Attorney Docket : Huang/Cont Raised Port
Customer No. : 26860

APPEAL BRIEF, 37 CFR 1.192

February 8, 2005

Mail Stop Appeal Brief - Patents
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

VIA FAX (703) 872-9306

Dear Commissioner for Patents:

Further to the Notice of Appeal, filed December 8, 2004, Appellant-Applicant George Y. Huang presents this Appeal Brief. Appellant respectfully requests that this appeal be considered by the Board of Patent Appeals and Interferences.

This Appeal Brief is submitted in triplicate, along with the following items:

- Transmittal Form (PTO/SB/21);
- Fee Transmittal Form (PTO/SB/17);
- Credit Card Payment Form (PTO 2038); and
- Appeal Brief (3 copies).

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I. REAL PARTY IN INTEREST

The subject patent application is owned by the inventor and applicant, George Y. Huang.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences pending.

The parent (application No. 09/657,869) of this continuation application was the subject of an appeal, No. 2002-1175, filed on October 3, 2001 ("first appeal"). The Board of Patent Appeals & Interferences (BPAI) rendered its Decision on Appeal on June 17, 2003 ("6/17/03 Decision"), affirming the rejections, as discussed in greater detail below. However, at the oral hearing in that first appeal, the Appellant and the BPAI discussed an amendment to overcome the Examiner's rejections. At the oral hearing, Appellant understood the BPAI to take the position that the proposed amendment would overcome the ground for rejection, but it could not recommend the amendment to the Examiner. Following the first appeal, Applicant filed the instant continuation application and a preliminary amendment incorporating the proposed amendment. However, the Examiner twice and finally rejected the amended claims and this second appeal followed.

III. STATUS OF CLAIMS

Claims 1, 3 through 12, and 14 through 16 are pending, were rejected by the Examiner, and are the subject of this appeal. Claims 2 and 13 were canceled in the preliminary amendment filed with the instant continuation application.

IV. STATUS OF AMENDMENTS

All the pending claims, 1, 3 through 12, and 14 through 16, of the instant continuation

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application were amended in a preliminary amendment filed with the continuation application.

Claims 2 and 13 were canceled in that preliminary amendment. At the time of filing of this brief, no amendments subsequent to the final rejection have been made. The Appendix hereto reflects the current state of the claims.

V. SUMMARY OF THE INVENTION

The invention relates to electrical connector and adapter structures used in the electronics industry. See U.S. Publication No. 2004/53,533 ("Huang"), at ¶ 0004. The invention discloses a connector or adapter housing structure that provides a raised portion that will be exposed after the outer plastic covering is molded onto the connector or adapter. Id. at ¶¶ 0016-18, and Fig. 2. This raised portion of the housing provides a place to incorporate designs, such as business logos or gripping surfaces, which can be formed as part of the raised portion. Id. at ¶¶ 0019 and 0021, and Figures 3 and 4.

The present invention eliminates the need to apply a logo through a second injection molding process or by affixing it in a later manufacturing step. Id. at ¶¶ 0007 (describing need for two-step molding process of prior art), and 0010 (invention eliminates second injection molding step). The raised portion of the present invention also provides a more discernable and durable surface for logos than the molded plastic covering. Id. Moreover, with transparent plastic coverings of recent designs, the raised portion of the present invention provides the best surface for logos or other information. Id. In this way, a cable connector or adapter can be manufactured and assembled with fewer parts and steps, and the finished product will provide a superior surface for logos and information. Id.

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VI. ISSUES

1. Whether claims 1 and 12 are unpatentable under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,735,699 to Tan *et al.* ("Tan").
2. Whether claims 1 and 12 are unpatentable under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,704,091 to Owens *et al.* ("Owens").
3. Whether claims 3 through 6 and 14 are unpatentable under 35 U.S.C. § 103(a) over Owens.
4. Whether claims 7 and 15 are unpatentable under 35 U.S.C. § 103(a) over Owens.
5. Whether claims 8 and 10 are unpatentable under 35 U.S.C. § 103(a) over Owens.
6. Whether claims 11 and 16 are unpatentable under 35 U.S.C. § 103(a) over Owens in view of U.S. Patent No. 4,164,725 to Wiebe ("Wiebe").

VII. GROUPING OF CLAIMS

With respect to the 35 U.S.C. § 102(b) rejections, claims 1 and 12 will stand or fall together, insofar as the Examiner's ground for rejection is applied in the same way to each claim.

With respect to the 35 U.S.C. § 103(a) rejections, claims 3 and 14 stand or fall together, insofar as the Examiner's ground for rejection is applied in the same way to each claim. Claims 4 through 6 stand or fall together, insofar as the Examiner's ground for rejection is applied in the same way to each claim. Claims 7 and 15 stand or fall together, insofar as the Examiner's ground for rejection is applied in the same way to each claim. Claims 8 through 10 stand or fall together, insofar as the Examiner's ground for rejection is applied in the same way to each claim. Claims 11 and 16 stand or fall together, insofar as the Examiner's ground for rejection is applied

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in the same way to each claim.

VIII. ARGUMENT

A. APPEAL IN THE PARENT APPLICATION

At the oral hearing in the first appeal, the Appellant and the BPAI discussed an amendment to claim 1 to overcome the Examiner's rejections. Before amendment, claim 1 read as follows (emphasis added):

1. An electrical connector structure comprising:

a housing with an outer surface and at least one end adapted to hold an electrical connector plug, wherein the housing has a raised portion that is above the outer surface of the housing, and

a covering formed over the outer surface of the housing, wherein the covering is further formed around the raised portion so that an exposed part of the raised portion is not covered by the covering, and

wherein the exposed part of the raised portion forms a surface further comprising a design formed as part of the surface.

The BPAI concluded that the raised portion 26 of Owens inherently constituted a "design" within the meaning of the bolded language in Appellant's claim 1. See 6/17/03 Decision. At the oral hearing, Appellant and the BPAI discussed an amendment that would overcome the Owens reference. The amendment was as follows:

1. An electrical connector structure comprising:

a housing with an outer surface and at least one end adapted to hold an electrical connector plug, wherein the housing has a raised portion that is above the outer surface

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of the housing, and

a covering formed over the outer surface of the housing, wherein the covering is further formed around the raised portion so that an exposed part of the raised portion is not covered by the covering, wherein the exposed part of the raised portion further comprises a background surface and a design surface, and

wherein the ~~exposed part of the raised portion forms a surface further comprising a design~~ design surface is formed as part of the background surface and is not level with the background surface.

At the oral hearing, Appellant understood the BPAI to take the position that the above amendment would overcome the BPAI's ground for rejection. That is, the BPAI stated that the raised portion 26 of Owens formed a "design surface", thereby anticipating the claim. The above amendment, discussed at the oral hearing, overcame the Owens reference by distinguishing between a "design surface" of the type the BPAI argued was inherent in the raised portion 26 of Owens, and "design surface" which is distinguished from a "background surface". The amendment overcame Owens by clarifying that the claimed "design surface" is not the same as, nor at the same level as, the claimed "background surface".

Following the 6/17/03 Decision, Applicant filed a continuation application with a preliminary amendment incorporating the amendment discussed with the BPAI. The Examiner did not maintain the previous grounds for rejection, which were involved in the first appeal, but rejected the amended claims based on new arguments.

B. 35 U.S.C. § 102(b) REJECTION

The Examiner rejected the two independent claims, 1 and 12, under 35 U.S.C. §102(b),

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as being anticipated by Tan. See September 9, 2004 Final Office Action ("9/9/04 OA"), at p. 2. Of particular importance, the Examiner erroneously interpreted the drawings of Tan as showing the Applicant's claimed "raised portion" with a "background surface" and "design surface", when, in fact, Tan shows no such structure at all. With respect to the elements of Tan relied upon by the Examiner, Tan shows and describes an audio jack unit (17) with a hollow, cylindrical "mating port" (29) for receiving an audio jack connector. Tan shows no surfaces. The descriptions in Tan directly contradict the Examiner's arguments. The Examiner made these arguments in the January 6, 2004 Non-Final Office Action ("1/6/04 OA"), at p. 2, and Applicant's June 7, 2004 Response ("6/7/04 Response"), noted the discrepancies between the Examiner's arguments and the actual teaching of Tan. However, the Examiner continued to insist that the hollow, cylindrical, audio jack connector (29) of Tan is solid and not an audio port as described by Tan. See 9/9/04 OA, at p. 6 ("**first of all**, Tan et al. clearly discloses that the housing 16 has a raised portion 29 that is above the outer of the housing 16"; emphasis added). Thus, Tan does not show the elements of Applicant's claims. The Examiner's argument is without support.

The Examiner also rejected claims 1 and 12 on the the ground that they are anticipated by U.S. Patent No. 4,704,091 to Owens *et al.* ("Owens"). See 9/9/04 OA, at p. 3. The Examiner argued that while Owens does not disclose "**background surface and a design surface**", such limitations are unpatentable because they are "matters relating to **ornamentation only which have no mechanical function**" and, therefore, "cannot be relied upon to **patentably distinguish** the claimed invention from the prior art." Id. (Emphasis in original.) This argument cannot

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support an anticipation rejection, because the prior art does not teach all the elements and limitations of the claimed invention. Moreover, Applicant's disclosure specifically recites the manufacturing advantages of the limitations the Examiner denounces as ornamental.

1. Tan Does Not Have the Elements Recited by the Examiner

a. Tan's Audio Jack (17) Mating Ports (29) Are Not Raised Portions With Background and Design Surfaces

The Examiner argued that Tan discloses a device (10) with a housing (16), "wherein the housing 16 has a raised portion 29 above the outer surface of the housing 16", and that an "exposed part of the raised portion further comprises a background surface BS and a design surface DS". See 9/9/04 OA, at p. 2. The Examiner erroneously interpreted the drawings of Tan as showing the Applicant's claimed "raised portion" with a "background surface" and "design surface", when, in fact, Tan shows no such structure at all. In support of this argument, the Examiner identified Fig. 3 of Tan and copied into the 9/9/04 OA with the Examiner's superimposed references to "BS" and "DS". Id.

Tan discloses an "existing universal frame and its associated audio jack assembly" (12) (Tan, Col. 1:37-38), "for mounting to a mother board (100)" (id., Abstract) within a "computer case" (id., Col. 1:10-11), with an improved grounding clip (26). Id., Col. 1:6 and 1:35. The Examiner misunderstands the structure of the audio jack (16) mating ports (29) (id., Col. 3:46) and argues that they constitute the "raised portion" element of the claims at issue. See 9/9/04 OA, at 2. The Examiner mistakenly speculates that each of the audio jack mating ports (29) of Tan "further comprises a **background surface BS** and a **design surface DS**, and the design

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surface is formed as part of the background surface and is not level with the background surface". Id. (Emphasis added.) Tan does not disclose or show such a structure. On the contrary, Tan discloses a "three-in-one integral audio jack assembly 16" (see Tan, Col. 2:28) "composed of three audio jack units 17" (id., Col. 2:38-39) having electrical contacts (22 and 24, id., Col. 2:40-41) for mating to a computer motherboard (100, id., Col. 2:41-51), and each audio jack unit (17) has a "mating port" (29, id., Col. 3:46):

the mating port 29 of the audio jack unit 17 commonly project out of the opening 48 of the bracket 12 wherein the mating portion 29 of the audio jack unit 17 is positioned on the upper portion thereof...

See Tan, Col. 3:45-49. The expressly referenced companion application of Tan (see Tan, Col. 1:13-14), U.S. Patent No. 5,643,008 ("Tan II"), includes a slightly more detailed description of the audio jack assembly and mating ports:

the mating portion 42 of each unit 34 of the audio jack assembly 30 is adapted to project out of the corresponding opening 25 of the bracket 12 for coupling to the complementary cable connector (not shown).

See Tan II, Col. 3:51-55.

From these descriptions in Tan, it will be appreciated that, contrary to the Examiner's erroneous speculation, Tan does not show any surface, neither background nor design, neither "exposed", level nor lower than any other surface; rather, Tan shows a hollow, cylindrical audio jack mating port (29) to receive an audio cable connector. Therefore, as to the background and design surface elements, Tan does not anticipate the claimed structure. The Examiner's interpretation of Tan's Fig. 3, as shown by the Examiner's added markings "BS" and "DS", is

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contrary to Tan's description.

Moreover, as described in Tan and Tan II, each audio jack unit (17) has four signal contacts (22) as well as a grounding contact (24) (see Tan, Col. 2:38-41, and Tan II, at Col. 3:26-32), and it will be appreciated that the mating ports (29) are formed in multiple rings of electrical contacts and insulators. The claim language at issue here includes the limitation that the raised portion "is formed as part of the background surface", which is not taught by the many-layered audio jack ports of Tan.

b. Tan Lacks The Other Claimed Elements And Limitations

The Examiner also misinterpreted the other elements of Tan. The structure shown in Tan is an audio jack assembly (10), with a grounding clip (26), for mounting to a computer motherboard (100). This structure does not disclose or teach the elements of Applicant's claims, such as a "housing with an outer surface", an "end adapted to hold an electrical connector plug", a "raised portion", *etc.*

The Examiner argues that the "three-in-one integral audio jack assembly 16" of Tan (see Tan, Col. 2:28) is the equivalent of the claimed "housing". See 9/9/04 OA, at p. 2. This is incorrect. As explained in Tan, the three-in-one integral audio jack "assembly" (16) is an assembly, that is, a collection of parts (see Tan, Col. 2:38-51), and does not form a "housing" at all. The Examiner does not point out what part of Tan's three-in-one integral audio jack assembly (16) constitutes the claims' "outer surface", and erroneously associates a "downward huge cavity 20" (id., Col. 2:33-34) in the "universal frame or bracket 12" (id., Col. 2:25) with the three-in-one integral audio jack assembly (16). See 9/9/04 OA, at p. 2. The cavity (20) of Tan is

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in its bracket (20), not in the three-in-one integral audio jack assembly (16), and is not an “end adapted to hold an electrical connector plug”, as claimed. The audio jack mating ports (29) of Tan are not the claimed “raised portion”; rather, they are themselves audio jack connectors. The Examiner incorrectly interprets the “universal frame or bracket 12” (*id.*, Col. 2:25) of Tan with the claimed “covering formed over the outer surface of the housing”. See 9/9/04 OA, at p. 2. As Tan describes, the bracket (12) is a frame to hold a D-subminiature connector (14), not a covering. See Tan, Col. 2:25-31 (the connector (14) is attached to the bracket (12) by rivets (18)). Tan nowhere teaches a covering as claimed here. Thus, Tan does not have any of the elements at issue here. Applicant raised these arguments in its 6/7/04 Response, but the Examiner made no effort to address them. See 9/9/04 OA, at p. 6.

2. Owens Cannot Anticipate the Claimed Invention Because it Lacks All the Elements and Limitations

The Examiner also argues that the claims are anticipated by U.S. Patent No. 4,704,091 to Owens, *et al.* (“Owens”). See 9/9/04 OA, at p. 3. This anticipation argument is improper, because the Examiner admits that Owens does not teach the background and design surface elements, as well as other limitations of Applicant’s claims. Id. A rejection for anticipation under Section 102 requires that each and every limitation of the claimed invention be disclosed in a single prior art reference. Scripps Clinic & Research Foundation v. Genentech, Inc., 927 F.2d 1565 (Fed. Cir. 1991). The Examiner’s argument is contrary to the “all elements rule” for anticipation, as explained by Scripps Clinic, 927 F.2d at 1576 (emphasis added):

Invalidity for anticipation requires that all of the elements and limitations of the claim are found within a single prior art

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reference. [*Citations omitted.*] **There must be no difference between the claimed invention and the reference disclosure**, as viewed by a person of ordinary skill in the field of the invention.

In addition, the reference must be enabling and describe the applicant's claimed invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention. Id. It is legal error to "build" an anticipation argument on more than a single reference:

If it is necessary to reach beyond the boundaries of a single reference to provide missing disclosure of the claimed invention, the proper ground is not § 102 anticipation, but § 103 obviousness.

Id., 927 F.2d at 1576-77, citing Studiengesellschaft Kohle, mbH v. Dart Industries, Inc., 726 F.2d 724, 727, 220 USPQ 841, 842 (Fed. Cir. 1984).

In this application, the Examiner has attempted to "build" an anticipation rejection on the unsupported contention that the claimed raised portion structure is ornamentation, and, therefore, Owens anticipates it, even though the Examiner admits that Owens lacks the claimed structure. Because this argument violates the rules for anticipation, it cannot stand.

The Examiner incorrectly cites In re Seid, 161 F.2d 229 (C.C.P.A. 1947), for the proposition that claim elements or limitations relating to "ornamentation only" do not fall within the general rule that a single anticipating reference must disclose every claimed element. See 9/9/04 OA, at p. 3. In re Seid did not involve anticipation; rather, it addressed the issue of obviousness.

It was conceded by both the board and the examiner that the claims were not met by any single reference.

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The issue presented here is whether the proposed combination of references is an **obvious** one or one involving invention.

Id., 161 F.2d at 231 (emphasis added).

Moreover, the Examiner misinterpreted the ruling in In re Seid. In that case, the claim at issue involved a soda bottle with “an artificial display figure... representing exteriorly a human head and upper body trunk”, of a specifically claimed form, to fit over the bottle’s neck. Id., 161 F.2d at 229-30. The claim was rejected as obvious in light of several prior art patents disclosing bottles with neck coverings and human figures. Id., 161 F.2d at 230. The Court held that the “particular shape and arrangement” of the applicant’s claimed human figure, “including the arrangement of the arms”, related “to ornamentation only and have no mechanical function whatsoever.” Id., 161 F.2d at 231. It should be noted that all of the issued prior art patents discussed in In re Seid included claims for structures intended to provide a place for a design – ornamentation – on bottles. The applicant’s difficulty in In re Seid was that the claimed bottle design was only distinguishable to the extent it recited a *specific design* of a human form. Thus, In re Seid stands for the rule that a claim reciting a specific ornamental design, such as a human figure arranged in a particular way, cannot be distinguished from prior art that discloses a generic design, such as a human figure.

In this application, the Examiner argues that, since the claims relate to a structure with background surface and a design surface, they claim “matters relating to **ornamentation only which have no mechanical function**” and are unpatentable. See 9/9/04 OA, at p. 3 (emphasis in original). The Examiner has confused mechanical structure having the function of providing a

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place for ornamentation with the ornamentation itself. In the present application, Applicant has made no claim to a particular ornamentation; rather, Applicant has claimed a mechanical structure, with expressly detailed industrial advantages, that can provide a "design surface" of a certain type. Thus, In re Seid does not support the Examiner's rejection. Moreover, all the prior art cited in In re Seid involved issued patents that claimed structures for locating ornamental designs, which is the case in the present application.

Finally, the mechanical advantages of the present design have been expressly recited in Applicant's Specification. See Huang, at ¶¶ 0006-10. The problem of a two-step molding process to apply manufacturers' designs is expressly described. Id., at ¶ 0007. The problem of distinguishing a manufacturer's design through transparent plastic is also described. Id., ¶ 0008. The present invention provides a mechanical structure for an electrical connector that overcomes these problems. Id., ¶ 0010. The specific form of an ornamental design is not claimed. Therefore, the Examiner's reliance on In re Seid is misplaced.

C. REJECTION OF CLAIMS , 3, 4-10, 11, AND 14-16 UNDER 35 USC §103(a)

The Examiner rejected dependent claims 3, 4-7, 11 and 14-16 under 35 U.S.C. §103(a) as being unpatentable over Owens. See 9/9/04 OA, at pp. 4-5.

The Examiner failed to provide an explanation of what claimed elements or limitations Owens acts as a primary reference, merely stating that "Owens et al. Disclose most of the claimed invention". Id., at p. 4.

Owens shows a cable connector with an inner yoke (12) and an outer yoke (14). The inner yoke has a "raised planar member" (26) that extends through a "rectangular hole" (42) in

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the outer yoke (14) for “mechanical security of the inner yoke 12 and associated components within the outer yoke member 14.” See Owens, Col. 3:15-20 (“Raised planar member 26 engages within rectangular hole 42, and the elongated oval member 36 engages within hole 44 of the outer yoke 14 for positive mechanical positioning and securing of the inner yoke 12 within the outer yoke 14”), and Col. 3:61 through Col. 4:4 (“The raised planar surface 26 essentially extends through rectangular hole 42 of the outer yoke 14 as does the elongated oval member 36 through the elongated oval hole 44 on the underside of the outer yoke body 14 for mechanical securement of the inner yoke 12 and associated components within the outer yoke member 14”). Owens does not describe or claim the “raised planar member” as a structure for incorporating designs, logos or a gripping surface.

Owens disclosed a three-step molding process, wherein an “informational plaque” is encompassed by the outer yoke (14) during molding of the outer yoke. That is, Owens describes molding an “information plaque” into the connector. See Owens, at Abstract (“a final yoke assembly is molded encompassing the ... informational plaque”); see also Col. 1:47-48 (“information plaques molded into the yoke”), Col. 1:59-60 (“a molded contact pin dot information plaque in the yoke”), Col. 3:50-58 (“[i]n forming outer yoke 14, a high grade polymer molding compound flows around and is molded to the inner yoke 12, around color coded alpha-numeric labeling inserts 28a-28n leaving the upper surface of the inserts 28a-28n exposed, around the raised planar informative plaque member 26, and around bottom elongated oval member 36 as illustrated in FIG. 3 also leaving their exterior surfaces exposed”), Col. 4:48-49 (dependent claim 4, “System of claim 1 including information plaque means molded into said

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outer yoke housing”), and Col. 4:60-62 (independent claim 4, “c. molding an outer yoke housing incorporating an information plaque and the inner yoke body of step (b)”). Owens’ teaching reflects the problem of the prior art disclosed by Huang:

To provide a place for a manufacturer’s name or for part identification, the plastic covering 11 of conventional connectors is sometimes molded with a recess 20. In the recess 20, identifying logos, designs, words, or numbers are often formed in the molding process, leaving raised or indented surfaces (not shown) in the plastic covering 11. Or, a label (not shown) can be affixed in the recess 20 after molding. **Some designs have a raised surface design by placing the cable connector 10 or adapter in a second injection mold and adding a second plastic surface 15. This two-step molding process allows different colors or textures of plastic to be used.**

See Huang, ¶ 0007 (emphasis added). In summary, Owens teaches and Huang discloses as prior art a multi-step molding process to incorporate an “informational plaque” (Owens) or “raised surface design” (Huang’s disclosure of prior art) into a final plastic connector.

1. Claims 3 and 14

The Examiner argues that Owens renders claims 3 and 14 (sub-surface limitation) obvious, because “applicant has not disclosed that this limitation solve [*sic*] any stated problem or are for any other purpose”. See 9/9/04 OA, at p. 4. The Examiner is mistaken. As noted above, Applicant’s Specification describes the problems of the prior art, including the multi-step molding and transparent plastic covering problems (see Huang, at ¶¶ 0007-8), and explains that the claimed invention overcomes these problems by providing a design surface in which and onto which “logos or other information can be placed on or molded into”. Id., “Summary of the Invention”, at ¶ 0010. The Specification explains that according to the claimed structure, “a

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cable connector or adapter can be manufactured and assembled with fewer parts and steps, and the finished product will provide a superior surface for logos and information.” Id. Therefore, contrary to the Examiner’s argument, Applicant fully described the problems of the prior art and how the claimed structure overcomes those problems.

Moreover, the Examiner’s argument is legally flawed. The Examiner argued that, based on the erroneous assumption that Applicant’s invention does not “solve any stated problem or are for any particular purpose” (see 9/9/04 OA, at p. 4), the invention “would perform equally well with or without a **design surface** formed as a sub-surface design **below** the background surface.” Id. (Emphasis in original.) In other words, the Examiner has concluded that the raised portion of the claimed structure is useless and, therefore, rendered obvious by Owens, which does not have an equivalent structure. An obviousness rejection cannot be based on an argument that a claimed element or limitation fails to solve a stated problem. To support an obviousness rejection, the Examiner was required to identify a single, primary reference. Durling v. Spectrum Furniture Co., 101 F.3d 100, 103 (Fed. Cir.1996). After the primary reference is identified, secondary references must be identified. Id., citing In re Harvey, 12 F.3d 1061, 1063 (Fed. Cir. 1993). The secondary references may only be used when a suggestion or motivation, to combine the primary and secondary references to create the claimed design, is identified. Hupp v. Siroflex of America, Inc., 122 F.3d 1456, 1462 (Fed. Cir.1997).

Pursuant to MPEP §706.02(j), “After indicating that the rejection is under 35 U.S.C. 103, the examiner should set forth in the Office action: (A) the relevant teaching of the prior art relied upon . . . , (B) the difference or differences in the claim over the applied references, © the

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proposed modification of the applied references(s) necessary to arrive at the claimed subject matter, and (D) an explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification.”

MPEP §706.02(j) further provides that “To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.” (Citation omitted.)

MPEP §706.02(j) explains that “The initial burden is on the examiner to provide suggestion of the desirability of doing what the inventor has done. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.” (Citation omitted.)

MPEP §2141.01 provides that “When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to: (A) The claimed invention must be considered as a whole; (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; © The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (D) Reasonable expectation of success is the standard with which obviousness is determined.” (Citation omitted.)

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In this application, the Examiner failed to follow the procedures and legal standards for an obviousness rejection and has, instead, created an obviousness standard that depends on an Examiner's factual assertion that a particular element or limitation does not "solve any stated problem". See 9/9/04 OA, at p. 4. This standard is unsupported and must be overturned.

2. Claims 4 through 6

The Examiner argues that Owens renders claims 4 through 6 (sub-surface limitation) obvious, because these claims recite an unpatentable product by process when the "method does not impart any structural limitation." See 9/9/04 OA, at p. 4. These claims relate to the creation of a design in the "background surface" by molding (claim 4), machining (claim 5), or stamping (claim 6). The Examiner argues that Owens is the primary reference, relying on the 35 USC §102(b) rejection of the base claims, discussed above. As explained above, Owens does not anticipate the base claims. Therefore, the rejection of these dependent claims fails. Moreover, contrary to the Examiner's argument, the rejected claims are distinguishable over the prior art, because they claim structures that overcome the problems of the prior art; namely, providing a design surface in which and onto which "logos or other information can be placed on or molded into" (see Huang, at ¶ 0010), to overcome the multi-step molding and transparent plastic covering problems. Id., at ¶¶ 0007-8). The Specification also explains that the claimed structure can provide a cable connector that "can be manufactured and assembled with fewer parts and steps", and a finished product with "a superior surface for logos and information." Id., at ¶ 0010. Thus, the claimed structure and process for manufacturing that structure have expressly described advantages over the prior art.

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The Examiner argued that the rejected claims involve an impermissible attempt to patent a product by process, citing In re Johnson, 394 F.2d 591, 594, 157 USPQ 620, 623 (CCPA 1968). This rejection is improper, since a “process” is expressly identified as patentable subject matters under the patent statute. See 35 U.S.C. §101 (“Whoever invents or discovers any new and useful **process**, machine, **manufacture**, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title”). Huang’s patent application discloses and claims manufacturing the design, formed in the exposed surface of the raised portion of the connector housing, during the manufacture of the housing, by molding, machining or stamping. As explained above, this manufacture eliminates the additional molding step claimed by Owens and disclosed by Huang as prior art. As explained in the Huang Specification, the elimination of the additional molding step simplifies connector manufacture. See Huang, ¶ 0010. Because the patent statute considers this patentable subject matter, the Examiner’s rejection is improper.

3. Claims 7 and 15

The Examiner rejected claims 7 and 15 (above-surface limitation) on the ground that “applicant has not disclosed that this limitation solve [*sic*] any stated problem or are for any other purpose”. See 9/9/04 OA, at pp. 4-5. This is the identical argument used to reject claims 3 and 14, as discussed in Section B.1, above. As noted above, Applicant’s Specification describes the problems of the prior art, including the multi-step molding and transparent plastic covering problems (see Huang, at ¶¶ 0007-8), and explains that the claimed invention overcomes these problems by providing a design surface in which and onto which “logos or other information can

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be placed on or molded into”. Id., “Summary of the Invention”, at ¶ 0010. The Specification explains that according to the claimed structure, “a cable connector or adapter can be manufactured and assembled with fewer parts and steps, and the finished product will provide a superior surface for logos and information.” Id. Therefore, contrary to the Examiner’s argument, Applicant fully described the problems of the prior art and how the claimed structure overcomes those problems.

Applicant also contests this rejection on the ground that the Examiner’s argument is legally flawed. The Examiner argued that, based on the erroneous assumption that Applicant’s invention does not “solve any stated problem or are for any particular purpose” (see 9/9/04 OA, at p. 5), the invention “would perform equally well with or without a **design surface** formed as a sub-surface design **below** the background surface.” Id. (Emphasis in original.) In other words, the Examiner has concluded that the raised portion of the claimed structure is useless and, therefore, anticipated by Owens, which does not have an equivalent structure. As with claims 3 and 14, discussed above, the Examiner has improperly attempted to build an obviousness rejection by reaching the factual determination that certain elements or limitations do not “solve any stated problem”. As argued above, there is no legal or factual basis for this argument and it must be overturned.

4. Claims 8 through 10

The Examiner argues that Owens renders claims 8 through 10 (above-surface limitation) obvious, because these claims recite an unpatentable product by process when the “method does not impart any structural limitation.” See 9/9/04 OA, at p. 5. The Examiner argues that Owens

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is the primary reference, relying on the 35 USC §102(b) rejection of the base claims, discussed above. As explained above, Owens does not anticipate the base claims. Therefore, the rejection of these dependent claims fails. Moreover, contrary to the Examiner's argument, the rejected claims are distinguishable over the prior art, because they claim structures that overcome the problems of the prior art; namely, providing a design surface in which and onto which "logos or other information can be placed on or molded into" (see, Huang, ¶ 0010), to overcome the multi-step molding and transparent plastic covering problems. Id., ¶¶ 0007-8. The Specification also explains that the claimed structure can provide a cable connector that "can be manufactured and assembled with fewer parts and steps", and a finished product with "a superior surface for logos and information." Id., ¶ 0010. Thus, the claimed structure and process for manufacturing that structure have expressly described advantages over the prior art.

The Examiner argued that the rejected claims involve an impermissible attempt to patent a product by process, citing In re Johnson, 394 F.2d 591, 594, 157 USPQ 620, 623 (CCPA 1968). This rejection is improper, since a "process" is expressly identified as patentable subject matters under the patent statute. See 35 U.S.C. §101 ("Whoever invents or discovers any new and useful **process**, machine, **manufacture**, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title"; emphasis added). Huang's patent application discloses and claims manufacturing the design, formed in the exposed surface of the raised portion of the connector housing, during the manufacture of the housing, by molding, machining or stamping. As explained above, this manufacture eliminates the additional molding step claimed by Owens and disclosed by Huang

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as prior art. As explained in the Huang Specification, the elimination of the additional molding step simplifies connector manufacture. See Huang ¶ 0010. Because the patent statute considers this patentable subject matter, the Examiner's rejection is improper.

5. Claims 11 and 16

The Examiner rejected dependent claims 11 and 16 as unpatentable over Owens in view of U.S. Patent No. 4,164,725 to Wiebe ("Wiebe"). See 9/9/04 OA, at p. 5. The Examiner argues that Owens is the primary reference, relying on the 35 USC §102(b) rejection of the base claims, discussed above. As explained above, Owens does not anticipate the base claims. Therefore, the rejection of these dependent claims fails.

To establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. In re Werner Kotzab, 217 F.3d 1365, 1370 55 U.S.P.Q.2d (BNA) 1313 (Fed. Cir. 2000) (internal citations omitted). The Examiner cited no suggestion or motivation to combine Owens with Wiebe. Rather, the Examiner improperly cited the desirability of providing a gripping surface (see 9/9/04 OA, at p. 5: "to permit one to better grip the connector") as the motivation to combine the references. This type of circular argument cannot form the basis of an obviousness rejection.

IX. CONCLUSION

For the foregoing reasons, it is submitted that the Examiner's rejections are without legal support, and reversal of the Examiner's decision is respectfully requested.

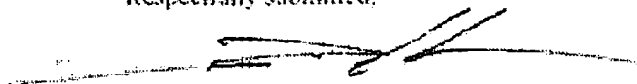
Application/Control Number: 10/642,413

Atty Docket No.: Huang/Cont
Raised Port

Ex'r: Tsukerman, Larisa Z.; Art Unit: 2833

Dated: February 8, 2005

Respectfully submitted,



Duncan Palmatier
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George Y. Huang

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Raised Port

Ex'r: Tsukerman, Larisa Z.; Art Unit: 2833

X. APPENDIX

The claims on appeal are as follows.

1. An electrical connector structure comprising:
a housing with an outer surface and at least one end adapted to hold an electrical connector plug, wherein the housing has a raised portion that is above the outer surface of the housing,
a covering formed over the outer surface of the housing, wherein the covering is further formed around the raised portion so that an exposed part of the raised portion is not covered by the covering, wherein the exposed part of the raised portion further comprises a background surface and a design surface, and
wherein the design surface is formed as part of the background surface and is not level with the background surface.
2. (canceled)
3. The electrical connector structure of claim 1 wherein the design surface formed in the background surface of the exposed part of the raised portion is a sub-surface design below the background surface.
4. The electrical connector structure of claim 3 wherein the sub-surface design is formed in the background surface of the raised portion of the housing during molding of the housing.
5. The electrical connector structure of claim 3 wherein the sub-surface design is formed in

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the background surface of the raised portion of the housing by machining.

6. The electrical connector structure of claim 3 wherein the sub-surface design is formed in the background surface of the raised portion of the housing by stamping.
7. The electrical connector structure of claim 1 wherein the design surface formed in the background surface of the exposed part of the raised portion is an above-surface design above the background surface.
8. The electrical connector structure of claim 7 wherein the above-surface design is formed in the background surface of the raised portion of the housing during molding of the housing.
9. The electrical connector structure of claim 7 wherein the above-surface design is formed in the background surface of the raised portion of the housing by machining.
10. The electrical connector structure of claim 7 wherein the above-surface design is formed in the background surface of the raised portion of the housing by stamping.
11. The electrical connector structure of claim 1 wherein the design surface formed in the background surface of the exposed part of the raised portion is a gripping surface design.
12. An electrical adapter structure comprising:
 - a housing with an outer surface and at least one end adapted to hold an electrical connector plug, wherein the housing has a raised portion that is above the outer surface of the housing,
 - a covering formed over the outer surface of the housing, wherein the covering is further

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formed around the raised portion so that an exposed part of the raised portion is not covered by the covering, wherein the exposed part of the raised portion further comprises a background surface and a design surface, and

wherein the design surface is formed as part of the background surface and is not level with the background surface.

13. (canceled)
14. The electrical adapter structure of claim 12 wherein the design surface formed in the background surface of the exposed part of the raised portion is a sub-surface design below the background surface.
15. The electrical adapter structure of claim 12 wherein the design surface formed in the background surface of the exposed part of the raised portion is an above-surface design above the surface of the background surface.
16. The electrical adapter structure of claim 12 wherein the design formed in the background surface of the exposed part of the raised portion is a gripping surface design.

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

First Named Inventor : George Y. Huang
Applicant : George Y. Huang
Application No. : 10/642,413
Filed : 08/15/2003
For : ELECTRICAL CONNECTOR AND ADAPTER
STRUCTURE WITH RAISED PORTION
Group Art Unit : 2833
Examiner : TSUKERMAN, LARISA Z.
Attorney Docket : Huang/Cont Raised Port
Customer No. : 26860

APPEAL BRIEF, 37 CFR 1.192

February 8, 2005

Mail Stop Appeal Brief - Patents
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

VIA FAX (703) 872-9306

Dear Commissioner for Patents:

Further to the Notice of Appeal, filed December 8, 2004, Appellant-Applicant George Y. Huang presents this Appeal Brief. Appellant respectfully requests that this appeal be considered by the Board of Patent Appeals and Interferences.

This Appeal Brief is submitted in triplicate, along with the following items:

- Transmittal Form (PTO/SB/21);
- Fee Transmittal Form (PTO/SB/17);
- Credit Card Payment Form (PTO 2038); and
- Appeal Brief (3 copies).

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I. REAL PARTY IN INTEREST

The subject patent application is owned by the inventor and applicant, George Y. Huang.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences pending.

The parent (application No. 09/657,869) of this continuation application was the subject of an appeal, No. 2002-1175, filed on October 3, 2001 ("first appeal"). The Board of Patent Appeals & Interferences (BPAI) rendered its Decision on Appeal on June 17, 2003 ("6/17/03 Decision"), affirming the rejections, as discussed in greater detail below. However, at the oral hearing in that first appeal, the Appellant and the BPAI discussed an amendment to overcome the Examiner's rejections. At the oral hearing, Appellant understood the BPAI to take the position that the proposed amendment would overcome the ground for rejection, but it could not recommend the amendment to the Examiner. Following the first appeal, Applicant filed the instant continuation application and a preliminary amendment incorporating the proposed amendment. However, the Examiner twice and finally rejected the amended claims and this second appeal followed.

III. STATUS OF CLAIMS

Claims 1, 3 through 12, and 14 through 16 are pending, were rejected by the Examiner, and are the subject of this appeal. Claims 2 and 13 were canceled in the preliminary amendment filed with the instant continuation application.

IV. STATUS OF AMENDMENTS

All the pending claims, 1, 3 through 12, and 14 through 16, of the instant continuation

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application were amended in a preliminary amendment filed with the continuation application.

Claims 2 and 13 were canceled in that preliminary amendment. At the time of filing of this brief, no amendments subsequent to the final rejection have been made. The Appendix hereto reflects the current state of the claims.

V. SUMMARY OF THE INVENTION

The invention relates to electrical connector and adapter structures used in the electronics industry. See U.S. Publication No. 2004/53,533 ("Huang"), at ¶ 0004. The invention discloses a connector or adapter housing structure that provides a raised portion that will be exposed after the outer plastic covering is molded onto the connector or adapter. Id. at ¶¶ 0016-18, and Fig. 2. This raised portion of the housing provides a place to incorporate designs, such as business logos or gripping surfaces, which can be formed as part of the raised portion. Id. at ¶¶ 0019 and 0021, and Figures 3 and 4.

The present invention eliminates the need to apply a logo through a second injection molding process or by affixing it in a later manufacturing step. Id. at ¶¶ 0007 (describing need for two-step molding process of prior art), and 0010 (invention eliminates second injection molding step). The raised portion of the present invention also provides a more discernable and durable surface for logos than the molded plastic covering. Id. Moreover, with transparent plastic coverings of recent designs, the raised portion of the present invention provides the best surface for logos or other information. Id. In this way, a cable connector or adapter can be manufactured and assembled with fewer parts and steps, and the finished product will provide a superior surface for logos and information. Id.

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VI. ISSUES

1. Whether claims 1 and 12 are unpatentable under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,735,699 to Tan *et al.* ("Tan").
2. Whether claims 1 and 12 are unpatentable under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,704,091 to Owens *et al.* ("Owens").
3. Whether claims 3 through 6 and 14 are unpatentable under 35 U.S.C. § 103(a) over Owens.
4. Whether claims 7 and 15 are unpatentable under 35 U.S.C. § 103(a) over Owens.
5. Whether claims 8 and 10 are unpatentable under 35 U.S.C. § 103(a) over Owens.
6. Whether claims 11 and 16 are unpatentable under 35 U.S.C. § 103(a) over Owens in view of U.S. Patent No. 4,164,725 to Wiebe ("Wiebe").

VII. GROUPING OF CLAIMS

With respect to the 35 U.S.C. § 102(b) rejections, claims 1 and 12 will stand or fall together, insofar as the Examiner's ground for rejection is applied in the same way to each claim.

With respect to the 35 U.S.C. § 103(a) rejections, claims 3 and 14 stand or fall together, insofar as the Examiner's ground for rejection is applied in the same way to each claim. Claims 4 through 6 stand or fall together, insofar as the Examiner's ground for rejection is applied in the same way to each claim. Claims 7 and 15 stand or fall together, insofar as the Examiner's ground for rejection is applied in the same way to each claim. Claims 8 through 10 stand or fall together, insofar as the Examiner's ground for rejection is applied in the same way to each claim. Claims 11 and 16 stand or fall together, insofar as the Examiner's ground for rejection is applied

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in the same way to each claim.

VIII. ARGUMENT

A. APPEAL IN THE PARENT APPLICATION

At the oral hearing in the first appeal, the Appellant and the BPAI discussed an amendment to claim 1 to overcome the Examiner's rejections. Before amendment, claim 1 read as follows (emphasis added):

1. An electrical connector structure comprising:

a housing with an outer surface and at least one end adapted to hold an electrical connector plug, wherein the housing has a raised portion that is above the outer surface of the housing, and

a covering formed over the outer surface of the housing, wherein the covering is further formed around the raised portion so that an exposed part of the raised portion is not covered by the covering, and

wherein the exposed part of the raised portion forms a surface further comprising a design formed as part of the surface.

The BPAI concluded that the raised portion 26 of Owens inherently constituted a "design" within the meaning of the bolded language in Appellant's claim 1. See 6/17/03 Decision. At the oral hearing, Appellant and the BPAI discussed an amendment that would overcome the Owens reference. The amendment was as follows:

1. An electrical connector structure comprising:

a housing with an outer surface and at least one end adapted to hold an electrical connector plug, wherein the housing has a raised portion that is above the outer surface

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of the housing, and

a covering formed over the outer surface of the housing, wherein the covering is further formed around the raised portion so that an exposed part of the raised portion is not covered by the covering, wherein the exposed part of the raised portion further comprises a background surface and a design surface, and

wherein the ~~exposed part of the raised portion forms a surface further comprising a design~~ design surface is formed as part of the background surface and is not level with the background surface.

At the oral hearing, Appellant understood the BPAI to take the position that the above amendment would overcome the BPAI's ground for rejection. That is, the BPAI stated that the raised portion 26 of Owens formed a "design surface", thereby anticipating the claim. The above amendment, discussed at the oral hearing, overcame the Owens reference by distinguishing between a "design surface" of the type the BPAI argued was inherent in the raised portion 26 of Owens, and "design surface" which is distinguished from a "background surface". The amendment overcame Owens by clarifying that the claimed "design surface" is not the same as, nor at the same level as, the claimed "background surface".

Following the 6/17/03 Decision, Applicant filed a continuation application with a preliminary amendment incorporating the amendment discussed with the BPAI. The Examiner did not maintain the previous grounds for rejection, which were involved in the first appeal, but rejected the amended claims based on new arguments.

B. 35 U.S.C. § 102(b) REJECTION

The Examiner rejected the two independent claims, 1 and 12, under 35 U.S.C. §102(b),

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as being anticipated by Tan. See September 9, 2004 Final Office Action ("9/9/04 OA"), at p. 2.

Of particular importance, the Examiner erroneously interpreted the drawings of Tan as showing the Applicant's claimed "raised portion" with a "background surface" and "design surface", when, in fact, Tan shows no such structure at all. With respect to the elements of Tan relied upon by the Examiner, Tan shows and describes an audio jack unit (17) with a hollow, cylindrical "mating port" (29) for receiving an audio jack connector. Tan shows no surfaces. The descriptions in Tan directly contradict the Examiner's arguments. The Examiner made these arguments in the January 6, 2004 Non-Final Office Action ("1/6/04 OA"), at p. 2, and Applicant's June 7, 2004 Response ("6/7/04 Response"), noted the discrepancies between the Examiner's arguments and the actual teaching of Tan. However, the Examiner continued to insist that the hollow, cylindrical, audio jack connector (29) of Tan is solid and not an audio port as described by Tan. See 9/9/04 OA, at p. 6 ("**first of all**, Tan et al. clearly discloses that the housing 16 has a raised portion 29 that is above the outer of the housing 16"; emphasis added). Thus, Tan does not show the elements of Applicant's claims. The Examiner's argument is without support.

The Examiner also rejected claims 1 and 12 on the the ground that they are anticipated by U.S. Patent No. 4,704,091 to Owens *et al.* ("Owens"). See 9/9/04 OA, at p. 3. The Examiner argued that while Owens does not disclose "**background surface and a design surface**", such limitations are unpatentable because they are "matters relating to **ornamentation only which have no mechanical function**" and, therefore, "cannot be relied upon to **patentably distinguish** the claimed invention from the prior art." Id. (Emphasis in original.) This argument cannot

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support an anticipation rejection, because the prior art does not teach all the elements and limitations of the claimed invention. Moreover, Applicant's disclosure specifically recites the manufacturing advantages of the limitations the Examiner denounces as ornamental.

1. Tan Does Not Have the Elements Recited by the Examiner

a. Tan's Audio Jack (17) Mating Ports (29) Are Not Raised Portions With Background and Design Surfaces

The Examiner argued that Tan discloses a device (10) with a housing (16), "wherein the housing 16 has a raised portion 29 above the outer surface of the housing 16", and that an "exposed part of the raised portion further comprises a background surface BS and a design surface DS". See 9/9/04 OA, at p. 2. The Examiner erroneously interpreted the drawings of Tan as showing the Applicant's claimed "raised portion" with a "background surface" and "design surface", when, in fact, Tan shows no such structure at all. In support of this argument, the Examiner identified Fig. 3 of Tan and copied into the 9/9/04 OA with the Examiner's superimposed references to "BS" and "DS". Id.

Tan discloses an "existing universal frame and its associated audio jack assembly" (12) (Tan, Col. 1:37-38), "for mounting to a mother board (100)" (id., Abstract) within a "computer case" (id., Col. 1:10-11), with an improved grounding clip (26). Id., Col. 1:6 and 1:35. The Examiner misunderstands the structure of the audio jack (16) mating ports (29) (id., Col. 3:46) and argues that they constitute the "raised portion" element of the claims at issue. See 9/9/04 OA, at 2. The Examiner mistakenly speculates that each of the audio jack mating ports (29) of Tan "further comprises a **background surface BS** and a **design surface DS**, and the design

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surface is formed as part of the background surface and is not level with the background surface". Id. (Emphasis added.) Tan does not disclose or show such a structure. On the contrary, Tan discloses a "three-in-one integral audio jack assembly 16" (see Tan, Col. 2:28) "composed of three audio jack units 17" (id., Col. 2:38-39) having electrical contacts (22 and 24, id., Col. 2:40-41) for mating to a computer motherboard (100, id., Col. 2:41-51), and each audio jack unit (17) has a "mating port" (29, id., Col. 3:46):

the mating port 29 of the audio jack unit 17 commonly project out of the opening 48 of the bracket 12 wherein the mating portion 29 of the audio jack unit 17 is positioned on the upper portion thereof...

See Tan, Col. 3:45-49. The expressly referenced companion application of Tan (see Tan, Col. 1:13-14), U.S. Patent No. 5,643,008 ("Tan II"), includes a slightly more detailed description of the audio jack assembly and mating ports:

the mating portion 42 of each unit 34 of the audio jack assembly 30 is adapted to project out of the corresponding opening 25 of the bracket 12 for coupling to the complementary cable connector (not shown).

See Tan II, Col. 3:51-55.

From these descriptions in Tan, it will be appreciated that, contrary to the Examiner's erroneous speculation, Tan does not show any surface, neither background nor design, neither "exposed", level nor lower than any other surface; rather, Tan shows a hollow, cylindrical audio jack mating port (29) to receive an audio cable connector. Therefore, as to the background and design surface elements, Tan does not anticipate the claimed structure. The Examiner's interpretation of Tan's Fig. 3, as shown by the Examiner's added markings "BS" and "DS", is

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contrary to Tan's description.

Moreover, as described in Tan and Tan II, each audio jack unit (17) has four signal contacts (22) as well as a grounding contact (24) (see Tan, Col. 2:38-41, and Tan II, at Col. 3:26-32), and it will be appreciated that the mating ports (29) are formed in multiple rings of electrical contacts and insulators. The claim language at issue here includes the limitation that the raised portion "is formed as part of the background surface", which is not taught by the many-layered audio jack ports of Tan.

b. Tan Lacks The Other Claimed Elements And Limitations

The Examiner also misinterpreted the other elements of Tan. The structure shown in Tan is an audio jack assembly (10), with a grounding clip (26), for mounting to a computer motherboard (100). This structure does not disclose or teach the elements of Applicant's claims, such as a "housing with an outer surface", an "end adapted to hold an electrical connector plug", a "raised portion", *etc.*

The Examiner argues that the "three-in-one integral audio jack assembly 16" of Tan (see Tan, Col. 2:28) is the equivalent of the claimed "housing". See 9/9/04 OA, at p. 2. This is incorrect. As explained in Tan, the three-in-one integral audio jack "assembly" (16) is an assembly, that is, a collection of parts (see Tan, Col. 2:38-51), and does not form a "housing" at all. The Examiner does not point out what part of Tan's three-in-one integral audio jack assembly (16) constitutes the claims' "outer surface", and erroneously associates a "downward huge cavity 20" (id., Col. 2:33-34) in the "universal frame or bracket 12" (id., Col. 2:25) with the three-in-one integral audio jack assembly (16). See 9/9/04 OA, at p. 2. The cavity (20) of Tan is

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in its bracket (20), not in the three-in-one integral audio jack assembly (16), and is not an “end adapted to hold an electrical connector plug”, as claimed. The audio jack mating ports (29) of Tan are not the claimed “raised portion”; rather, they are themselves audio jack connectors. The Examiner incorrectly interprets the “universal frame or bracket 12” (*id.*, Col. 2:25) of Tan with the claimed “covering formed over the outer surface of the housing”. See 9/9/04 OA, at p. 2. As Tan describes, the bracket (12) is a frame to hold a D-subminiature connector (14), not a covering. See Tan, Col. 2:25-31 (the connector (14) is attached to the bracket (12) by rivets (18)). Tan nowhere teaches a covering as claimed here. Thus, Tan does not have any of the elements at issue here. Applicant raised these arguments in its 6/7/04 Response, but the Examiner made no effort to address them. See 9/9/04 OA, at p. 6.

2. Owens Cannot Anticipate the Claimed Invention Because it Lacks All the Elements and Limitations

The Examiner also argues that the claims are anticipated by U.S. Patent No. 4,704,091 to Owens, *et al.* (“Owens”). See 9/9/04 OA, at p. 3. This anticipation argument is improper, because the Examiner admits that Owens does not teach the background and design surface elements, as well as other limitations of Applicant’s claims. Id. A rejection for anticipation under Section 102 requires that each and every limitation of the claimed invention be disclosed in a single prior art reference. Scripps Clinic & Research Foundation v. Genentech, Inc., 927 F.2d 1565 (Fed. Cir. 1991). The Examiner’s argument is contrary to the “all elements rule” for anticipation, as explained by Scripps Clinic, 927 F.2d at 1576 (emphasis added):

Invalidity for anticipation requires that all of the elements and limitations of the claim are found within a single prior art

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reference. [*Citations omitted.*] **There must be no difference between the claimed invention and the reference disclosure**, as viewed by a person of ordinary skill in the field of the invention.

In addition, the reference must be enabling and describe the applicant's claimed invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention. Id. It is legal error to "build" an anticipation argument on more than a single reference:

If it is necessary to reach beyond the boundaries of a single reference to provide missing disclosure of the claimed invention, the proper ground is not § 102 anticipation, but § 103 obviousness.

Id., 927 F.2d at 1576-77, citing Studiengesellschaft Kohle, mbH v. Dart Industries, Inc., 726 F.2d 724, 727, 220 USPQ 841, 842 (Fed. Cir. 1984).

In this application, the Examiner has attempted to "build" an anticipation rejection on the unsupported contention that the claimed raised portion structure is ornamentation, and, therefore, Owens anticipates it, even though the Examiner admits that Owens lacks the claimed structure. Because this argument violates the rules for anticipation, it cannot stand.

The Examiner incorrectly cites In re Seid, 161 F.2d 229 (C.C.P.A. 1947), for the proposition that claim elements or limitations relating to "ornamentation only" do not fall within the general rule that a single anticipating reference must disclose every claimed element. See 9/9/04 OA, at p. 3. In re Seid did not involve anticipation; rather, it addressed the issue of obviousness.

It was conceded by both the board and the examiner that the claims were not met by any single reference.

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The issue presented here is whether the proposed combination of references is an **obvious** one or one involving invention.

Id., 161 F.2d at 231 (emphasis added).

Moreover, the Examiner misinterpreted the ruling in In re Seid. In that case, the claim at issue involved a soda bottle with “an artificial display figure... representing exteriorly a human head and upper body trunk”, of a specifically claimed form, to fit over the bottle’s neck. Id., 161 F.2d at 229-30. The claim was rejected as obvious in light of several prior art patents disclosing bottles with neck coverings and human figures. Id., 161 F.2d at 230. The Court held that the “particular shape and arrangement” of the applicant’s claimed human figure, “including the arrangement of the arms”, related “to ornamentation only and have no mechanical function whatsoever.” Id., 161 F.2d at 231. It should be noted that all of the issued prior art patents discussed in In re Seid included claims for structures intended to provide a place for a design – ornamentation – on bottles. The applicant’s difficulty in In re Seid was that the claimed bottle design was only distinguishable to the extent it recited a *specific design* of a human form. Thus, In re Seid stands for the rule that a claim reciting a specific ornamental design, such as a human figure arranged in a particular way, cannot be distinguished from prior art that discloses a generic design, such as a human figure.

In this application, the Examiner argues that, since the claims relate to a structure with background surface and a design surface, they claim “matters relating to **ornamentation only which have no mechanical function**” and are unpatentable. See 9/9/04 OA, at p. 3 (emphasis in original). The Examiner has confused mechanical structure having the function of providing a

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place for ornamentation with the ornamentation itself. In the present application, Applicant has made no claim to a particular ornamentation; rather, Applicant has claimed a mechanical structure, with expressly detailed industrial advantages, that can provide a "design surface" of a certain type. Thus, In re Seid does not support the Examiner's rejection. Moreover, all the prior art cited in In re Seid involved issued patents that claimed structures for locating ornamental designs, which is the case in the present application.

Finally, the mechanical advantages of the present design have been expressly recited in Applicant's Specification. See Huang, at ¶¶ 0006-10. The problem of a two-step molding process to apply manufacturers' designs is expressly described. Id., at ¶ 0007. The problem of distinguishing a manufacturer's design through transparent plastic is also described. Id., ¶ 0008. The present invention provides a mechanical structure for an electrical connector that overcomes these problems. Id., ¶ 0010. The specific form of an ornamental design is not claimed. Therefore, the Examiner's reliance on In re Seid is misplaced.

C. REJECTION OF CLAIMS , 3, 4-10, 11, AND 14-16 UNDER 35 USC §103(a)

The Examiner rejected dependent claims 3, 4-7, 11 and 14-16 under 35 U.S.C. §103(a) as being unpatentable over Owens. See 9/9/04 OA, at pp. 4-5.

The Examiner failed to provide an explanation of what claimed elements or limitations Owens acts as a primary reference, merely stating that "Owens et al. Disclose most of the claimed invention". Id., at p. 4.

Owens shows a cable connector with an inner yoke (12) and an outer yoke (14). The inner yoke has a "raised planar member" (26) that extends through a "rectangular hole" (42) in

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the outer yoke (14) for “mechanical security of the inner yoke 12 and associated components within the outer yoke member 14.” See Owens, Col. 3:15-20 (“Raised planar member 26 engages within rectangular hole 42, and the elongated oval member 36 engages within hole 44 of the outer yoke 14 for positive mechanical positioning and securing of the inner yoke 12 within the outer yoke 14”), and Col. 3:61 through Col. 4:4 (“The raised planar surface 26 essentially extends through rectangular hole 42 of the outer yoke 14 as does the elongated oval member 36 through the elongated oval hole 44 on the underside of the outer yoke body 14 for mechanical securement of the inner yoke 12 and associated components within the outer yoke member 14”). Owens does not describe or claim the “raised planar member” as a structure for incorporating designs, logos or a gripping surface.

Owens disclosed a three-step molding process, wherein an “informational plaque” is encompassed by the outer yoke (14) during molding of the outer yoke. That is, Owens describes molding an “information plaque” into the connector. See Owens, at Abstract (“a final yoke assembly is molded encompassing the ... informational plaque”); see also Col. 1:47-48 (“information plaques molded into the yoke”), Col. 1:59-60 (“a molded contact pin dot information plaque in the yoke”), Col. 3:50-58 (“[i]n forming outer yoke 14, a high grade polymer molding compound flows around and is molded to the inner yoke 12, around color coded alpha-numeric labeling inserts 28a-28n leaving the upper surface of the inserts 28a-28n exposed, around the raised planar informative plaque member 26, and around bottom elongated oval member 36 as illustrated in FIG. 3 also leaving their exterior surfaces exposed”), Col. 4:48-49 (dependent claim 4, “System of claim 1 including information plaque means molded into said

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outer yoke housing”), and Col. 4:60-62 (independent claim 4, “c. molding an outer yoke housing incorporating an information plaque and the inner yoke body of step (b)”). Owens’ teaching reflects the problem of the prior art disclosed by Huang:

To provide a place for a manufacturer’s name or for part identification, the plastic covering 11 of conventional connectors is sometimes molded with a recess 20. In the recess 20, identifying logos, designs, words, or numbers are often formed in the molding process, leaving raised or indented surfaces (not shown) in the plastic covering 11. Or, a label (not shown) can be affixed in the recess 20 after molding. **Some designs have a raised surface design by placing the cable connector 10 or adapter in a second injection mold and adding a second plastic surface 15. This two-step molding process allows different colors or textures of plastic to be used.**

See Huang, ¶ 0007 (emphasis added). In summary, Owens teaches and Huang discloses as prior art a multi-step molding process to incorporate an “informational plaque” (Owens) or “raised surface design” (Huang’s disclosure of prior art) into a final plastic connector.

1. Claims 3 and 14

The Examiner argues that Owens renders claims 3 and 14 (sub-surface limitation) obvious, because “applicant has not disclosed that this limitation solve [*sic*] any stated problem or are for any other purpose”. See 9/9/04 OA, at p. 4. The Examiner is mistaken. As noted above, Applicant’s Specification describes the problems of the prior art, including the multi-step molding and transparent plastic covering problems (see Huang, at ¶¶ 0007-8), and explains that the claimed invention overcomes these problems by providing a design surface in which and onto which “logos or other information can be placed on or molded into”. Id., “Summary of the Invention”, at ¶ 0010. The Specification explains that according to the claimed structure, “a

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cable connector or adapter can be manufactured and assembled with fewer parts and steps, and the finished product will provide a superior surface for logos and information.” Id. Therefore, contrary to the Examiner’s argument, Applicant fully described the problems of the prior art and how the claimed structure overcomes those problems.

Moreover, the Examiner’s argument is legally flawed. The Examiner argued that, based on the erroneous assumption that Applicant’s invention does not “solve any stated problem or are for any particular purpose” (see 9/9/04 OA, at p. 4), the invention “would perform equally well with or without a **design surface** formed as a sub-surface design **below** the background surface.” Id. (Emphasis in original.) In other words, the Examiner has concluded that the raised portion of the claimed structure is useless and, therefore, rendered obvious by Owens, which does not have an equivalent structure. An obviousness rejection cannot be based on an argument that a claimed element or limitation fails to solve a stated problem. To support an obviousness rejection, the Examiner was required to identify a single, primary reference. Durling v. Spectrum Furniture Co., 101 F.3d 100, 103 (Fed. Cir.1996). After the primary reference is identified, secondary references must be identified. Id., citing In re Harvey, 12 F.3d 1061, 1063 (Fed. Cir. 1993). The secondary references may only be used when a suggestion or motivation, to combine the primary and secondary references to create the claimed design, is identified. Hupp v. Siroflex of America, Inc., 122 F.3d 1456, 1462 (Fed. Cir.1997).

Pursuant to MPEP §706.02(j), “After indicating that the rejection is under 35 U.S.C. 103, the examiner should set forth in the Office action: (A) the relevant teaching of the prior art relied upon . . . , (B) the difference or differences in the claim over the applied references, © the

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proposed modification of the applied references(s) necessary to arrive at the claimed subject matter, and (D) an explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification.”

MPEP §706.02(j) further provides that “To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.” (Citation omitted.)

MPEP §706.02(j) explains that “The initial burden is on the examiner to provide suggestion of the desirability of doing what the inventor has done. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.” (Citation omitted.)

MPEP §2141.01 provides that “When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to: (A) The claimed invention must be considered as a whole; (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; © The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (D) Reasonable expectation of success is the standard with which obviousness is determined.” (Citation omitted.)

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In this application, the Examiner failed to follow the procedures and legal standards for an obviousness rejection and has, instead, created an obviousness standard that depends on an Examiner's factual assertion that a particular element or limitation does not "solve any stated problem". See 9/9/04 OA, at p. 4. This standard is unsupported and must be overturned.

2. Claims 4 through 6

The Examiner argues that Owens renders claims 4 through 6 (sub-surface limitation) obvious, because these claims recite an unpatentable product by process when the "method does not impart any structural limitation." See 9/9/04 OA, at p. 4. These claims relate to the creation of a design in the "background surface" by molding (claim 4), machining (claim 5), or stamping (claim 6). The Examiner argues that Owens is the primary reference, relying on the 35 USC §102(b) rejection of the base claims, discussed above. As explained above, Owens does not anticipate the base claims. Therefore, the rejection of these dependent claims fails. Moreover, contrary to the Examiner's argument, the rejected claims are distinguishable over the prior art, because they claim structures that overcome the problems of the prior art; namely, providing a design surface in which and onto which "logos or other information can be placed on or molded into" (see Huang, at ¶ 0010), to overcome the multi-step molding and transparent plastic covering problems. Id., at ¶¶ 0007-8). The Specification also explains that the claimed structure can provide a cable connector that "can be manufactured and assembled with fewer parts and steps", and a finished product with "a superior surface for logos and information." Id., at ¶ 0010. Thus, the claimed structure and process for manufacturing that structure have expressly described advantages over the prior art.

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The Examiner argued that the rejected claims involve an impermissible attempt to patent a product by process, citing In re Johnson, 394 F.2d 591, 594, 157 USPQ 620, 623 (CCPA 1968). This rejection is improper, since a “process” is expressly identified as patentable subject matters under the patent statute. See 35 U.S.C. §101 (“Whoever invents or discovers any new and useful **process**, machine, **manufacture**, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title”). Huang’s patent application discloses and claims manufacturing the design, formed in the exposed surface of the raised portion of the connector housing, during the manufacture of the housing, by molding, machining or stamping. As explained above, this manufacture eliminates the additional molding step claimed by Owens and disclosed by Huang as prior art. As explained in the Huang Specification, the elimination of the additional molding step simplifies connector manufacture. See Huang, ¶ 0010. Because the patent statute considers this patentable subject matter, the Examiner’s rejection is improper.

3. Claims 7 and 15

The Examiner rejected claims 7 and 15 (above-surface limitation) on the ground that “applicant has not disclosed that this limitation solve [*sic*] any stated problem or are for any other purpose”. See 9/9/04 OA, at pp. 4-5. This is the identical argument used to reject claims 3 and 14, as discussed in Section B.1, above. As noted above, Applicant’s Specification describes the problems of the prior art, including the multi-step molding and transparent plastic covering problems (see Huang, at ¶¶ 0007-8), and explains that the claimed invention overcomes these problems by providing a design surface in which and onto which “logos or other information can

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be placed on or molded into”. Id., “Summary of the Invention”, at ¶ 0010. The Specification explains that according to the claimed structure, “a cable connector or adapter can be manufactured and assembled with fewer parts and steps, and the finished product will provide a superior surface for logos and information.” Id. Therefore, contrary to the Examiner’s argument, Applicant fully described the problems of the prior art and how the claimed structure overcomes those problems.

Applicant also contests this rejection on the ground that the Examiner’s argument is legally flawed. The Examiner argued that, based on the erroneous assumption that Applicant’s invention does not “solve any stated problem or are for any particular purpose” (see 9/9/04 OA, at p. 5), the invention “would perform equally well with or without a **design surface** formed as a sub-surface design **below** the background surface.” Id. (Emphasis in original.) In other words, the Examiner has concluded that the raised portion of the claimed structure is useless and, therefore, anticipated by Owens, which does not have an equivalent structure. As with claims 3 and 14, discussed above, the Examiner has improperly attempted to build an obviousness rejection by reaching the factual determination that certain elements or limitations do not “solve any stated problem”. As argued above, there is no legal or factual basis for this argument and it must be overturned.

4. Claims 8 through 10

The Examiner argues that Owens renders claims 8 through 10 (above-surface limitation) obvious, because these claims recite an unpatentable product by process when the “method does not impart any structural limitation.” See 9/9/04 OA, at p. 5. The Examiner argues that Owens

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is the primary reference, relying on the 35 USC §102(b) rejection of the base claims, discussed above. As explained above, Owens does not anticipate the base claims. Therefore, the rejection of these dependent claims fails. Moreover, contrary to the Examiner's argument, the rejected claims are distinguishable over the prior art, because they claim structures that overcome the problems of the prior art; namely, providing a design surface in which and onto which "logos or other information can be placed on or molded into" (see, Huang, ¶ 0010), to overcome the multi-step molding and transparent plastic covering problems. Id., ¶¶ 0007-8. The Specification also explains that the claimed structure can provide a cable connector that "can be manufactured and assembled with fewer parts and steps", and a finished product with "a superior surface for logos and information." Id., ¶ 0010. Thus, the claimed structure and process for manufacturing that structure have expressly described advantages over the prior art.

The Examiner argued that the rejected claims involve an impermissible attempt to patent a product by process, citing In re Johnson, 394 F.2d 591, 594, 157 USPQ 620, 623 (CCPA 1968). This rejection is improper, since a "process" is expressly identified as patentable subject matters under the patent statute. See 35 U.S.C. §101 ("Whoever invents or discovers any new and useful **process**, machine, **manufacture**, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title"; emphasis added). Huang's patent application discloses and claims manufacturing the design, formed in the exposed surface of the raised portion of the connector housing, during the manufacture of the housing, by molding, machining or stamping. As explained above, this manufacture eliminates the additional molding step claimed by Owens and disclosed by Huang

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as prior art. As explained in the Huang Specification, the elimination of the additional molding step simplifies connector manufacture. See Huang ¶ 0010. Because the patent statute considers this patentable subject matter, the Examiner's rejection is improper.

5. Claims 11 and 16

The Examiner rejected dependent claims 11 and 16 as unpatentable over Owens in view of U.S. Patent No. 4,164,725 to Wiebe ("Wiebe"). See 9/9/04 OA, at p. 5. The Examiner argues that Owens is the primary reference, relying on the 35 USC §102(b) rejection of the base claims, discussed above. As explained above, Owens does not anticipate the base claims. Therefore, the rejection of these dependent claims fails.

To establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. In re Werner Kotzab, 217 F.3d 1365, 1370 55 U.S.P.Q.2d (BNA) 1313 (Fed. Cir. 2000) (internal citations omitted). The Examiner cited no suggestion or motivation to combine Owens with Wiebe. Rather, the Examiner improperly cited the desirability of providing a gripping surface (see 9/9/04 OA, at p. 5: "to permit one to better grip the connector") as the motivation to combine the references. This type of circular argument cannot form the basis of an obviousness rejection.

IX. CONCLUSION

For the foregoing reasons, it is submitted that the Examiner's rejections are without legal support, and reversal of the Examiner's decision is respectfully requested.

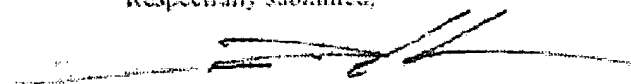
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Respectfully submitted,



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X. APPENDIX

The claims on appeal are as follows.

1. An electrical connector structure comprising:
a housing with an outer surface and at least one end adapted to hold an electrical connector plug, wherein the housing has a raised portion that is above the outer surface of the housing,
a covering formed over the outer surface of the housing, wherein the covering is further formed around the raised portion so that an exposed part of the raised portion is not covered by the covering, wherein the exposed part of the raised portion further comprises a background surface and a design surface, and
wherein the design surface is formed as part of the background surface and is not level with the background surface.
2. (canceled)
3. The electrical connector structure of claim 1 wherein the design surface formed in the background surface of the exposed part of the raised portion is a sub-surface design below the background surface.
4. The electrical connector structure of claim 3 wherein the sub-surface design is formed in the background surface of the raised portion of the housing during molding of the housing.
5. The electrical connector structure of claim 3 wherein the sub-surface design is formed in

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the background surface of the raised portion of the housing by machining.

6. The electrical connector structure of claim 3 wherein the sub-surface design is formed in the background surface of the raised portion of the housing by stamping.
7. The electrical connector structure of claim 1 wherein the design surface formed in the background surface of the exposed part of the raised portion is an above-surface design above the background surface.
8. The electrical connector structure of claim 7 wherein the above-surface design is formed in the background surface of the raised portion of the housing during molding of the housing.
9. The electrical connector structure of claim 7 wherein the above-surface design is formed in the background surface of the raised portion of the housing by machining.
10. The electrical connector structure of claim 7 wherein the above-surface design is formed in the background surface of the raised portion of the housing by stamping.
11. The electrical connector structure of claim 1 wherein the design surface formed in the background surface of the exposed part of the raised portion is a gripping surface design.
12. An electrical adapter structure comprising:
a housing with an outer surface and at least one end adapted to hold an electrical connector plug, wherein the housing has a raised portion that is above the outer surface of the housing,
a covering formed over the outer surface of the housing, wherein the covering is further

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formed around the raised portion so that an exposed part of the raised portion is not covered by the covering, wherein the exposed part of the raised portion further comprises a background surface and a design surface, and

wherein the design surface is formed as part of the background surface and is not level with the background surface.

13. (canceled)
14. The electrical adapter structure of claim 12 wherein the design surface formed in the background surface of the exposed part of the raised portion is a sub-surface design below the background surface.
15. The electrical adapter structure of claim 12 wherein the design surface formed in the background surface of the exposed part of the raised portion is an above-surface design above the surface of the background surface.
16. The electrical adapter structure of claim 12 wherein the design formed in the background surface of the exposed part of the raised portion is a gripping surface design.